



Environmental Investigation & Remediation

August 9, 2013

Ms. Shelly Lam, LPG  
On-Scene Coordinator  
U.S. Environmental Protection Agency, Region 5  
Emergency Response Branch #1  
2525 North Shadeland Avenue, Suite 100  
Indianapolis, IN 46219

**RE: Quality Management Plan, Contractor & Project Coordinator Notification  
Submittal, and Site Security Measures  
U.S. EPA Directed Time-Critical Removal Action  
Kokomo Dump Site  
1130 South Dixon Road  
Kokomo, Indiana 46901  
U.S. EPA Site Spill ID #C564  
SESCO Project #4108**

Dear Ms. Lam:

Pursuant to the requirements of the *Administrative Settlement Agreement and Order On Consent For Removal Action*, effective August 5, 2013, for the above referenced facility (hereafter referred to as "Site"), SESCO Group (SESCO) is pleased to provide the United States Environmental Protection Agency (U.S. EPA) with the enclosed Quality Management Plan (QMP), notification of the proposed contractors for the required work, and Site security measures. The following outlines the requested information.

**PROPOSED CONTRACTOR**

The Respondent has selected the following company to complete the work:

New SESCO, Inc.  
dba SESCO Group  
1426 West 29<sup>th</sup> Street  
Indianapolis, IN 46208  
Phone: (317) 347-9590  
Fax: (317) 347-9591  
Website: <http://www.sescogroup.com>

**Key Personnel**

The following key personnel from SESCO will be directly managing the project and their resumes are included in **Appendix A**.

Brent A. Graves, LPG #1832 – SESCO Chief Operating Officer  
William D. Pickard, LPG #2141 – SESCO Senior Project Manager  
Bradley W. Adams, CHMM #13162 – SESCO Project Manager

### **PROPOSED PROJECT COORDINATOR**

The proposed project coordinator at SESCO Group who will be managing the day-to-day project activities is as follows:

Bradley W. Adams, CHMM #13162 – Project Manager  
New SESCO, Inc.  
dba SESCO Group  
1426 West 29<sup>th</sup> Street  
Indianapolis, IN 46208  
Office Phone: (317) 347-9590, ext. 31  
Fax: (317) 347-9591  
Cell Phone: (317) 847-9973  
Email: [badams@sescogroup.com](mailto:badams@sescogroup.com)  
Website: <http://www.sescogroup.com>

### **PROPOSED SUBCONTRACTORS**

SESCO will partner with the following companies to complete the work. A copy of each company's Statement of Qualification is included in **Appendix B**.

#### **Land Surveying Company**

Miller Surveying, Inc.  
Mr. Nathan Althouse, Indiana Registered Land Surveyor #LS20400007  
948 Conner Street  
Noblesville, IN 46060  
Phone: (317) 773-2644  
Email: [nalthouse@msinc.us](mailto:nalthouse@msinc.us)

#### **Phase I Environmental Site Assessment Provider**

Morgan Clark Associates, LLC  
Ms. Betsy McNamara, CHMM, C.P., President/Owner  
403 Church Street  
Vincennes, IN 47591  
Phone: (269) 806-5185  
Email: [bmcnamara@mcenv.com](mailto:bmcnamara@mcenv.com)  
Website: <http://www.mcenv.com>

#### **Geophysical Survey Services Provider**

Prism GeoImaging  
Mr. John Vanderlaan, LPG, PG, President/Owner  
11057 Allisonville Road, Suite #144  
Fishers, IN 46038  
Phone: (269) 806-5185  
Email: [jvanderlaan@prismgeo.com](mailto:jvanderlaan@prismgeo.com)  
Website: <http://www.mcenv.com>

Excavation Contractor

Hoosier Equipment Service, Inc.  
Ms. Heidi (Farmer) Brumback, President/Owner  
8149 Network Drive  
Plainfield, IN 46168  
Phone: (317) 838-8988  
Email: [hbrumback@hoosierequipment.com](mailto:hbrumback@hoosierequipment.com)  
Website: <http://www.hoosierequipment.com>

Drum Disposal Contractor

American Industrial Services, LLC  
Mr. Greg Spears, CHMM, Vice President  
8500 Georgetown Road  
Indianapolis, IN 46268  
Phone: (317) 871-4091  
Email: [spears@aecindy.com](mailto:spears@aecindy.com)  
Website: <http://www.americanenvironmental.net>

Analytical Laboratory Services

Pace Analytical Services, Inc.  
Mr. Mick Mayse, Project Manager  
7726 Moller Road  
Indianapolis, IN 46268  
Phone: (317) 875-5894  
Email: [mick.mayse@pacelabs.com](mailto:mick.mayse@pacelabs.com)  
Website: <http://www.pacelabs.com>

**SITE SECURITY**

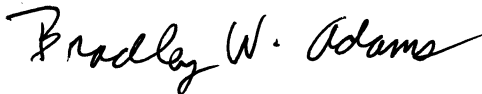
The Site is secured by a locked gate along the west side of the property. In addition, a 6-foot high chain link fence extends along the north, west, and south sides of the property. The Site is bordered to the east by a railroad right-of-way, which is covered in heavy brush, which restricts public access to the Site. Site security measures will be re-evaluated during all Site work and if additional security measures are necessary, the level of security will be adjusted accordingly.

**SESCO QUALITY MANAGEMENT PLAN**

In accordance with Section VII, Paragraph 12 of the *Administrative Settlement Agreement and Order On Consent For Removal Action*, effective August 5, 2013, SESCO is pleased to provide the U.S. EPA with the SESCO Quality Management Plan (QMP). A copy of the QMP is included in **Appendix C**.

We hope this information fulfills the requirements set forth by the U.S. EPA. SESCO looks forward to working with the U.S. EPA to mitigate environmental impacts on the Site. If you have any questions or require additional information, please contact Brad Adams at (317) 347-9590, Ext. #31.

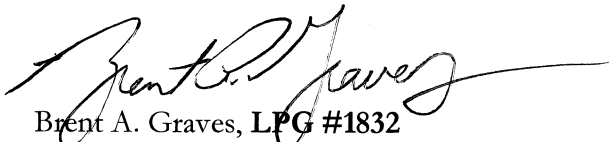
Sincerely,  
SESCO Group



Bradley W. Adams, CHMM #13162  
Project Manager



William D. Pickard, LPG #2141  
Senior Project Manager



Brent A. Graves, LPG #1832  
Chief Operating Officer

CC: Project File  
Mr. David L. Guevara, Ph.D., Taft Stettinius & Hollister LLP  
Mr. Lawrence McCormack, City Attorney, City of Kokomo, Indiana

## **LIST OF APPENDICES**

Appendix A	Resumes of Key SESCO Personnel
Appendix B	Subcontractor Statements of Qualification
Appendix C	SESCO Quality Management Plan

## **APPENDIX A**

### Resumes of Key SESCO Personnel



**Brent A. Graves, LPG**  
**Chief Operating Officer**  
**Suite: 101**  
**Phone:** (317) 347-9590 Ext. 24  
**Mobile:** (317) 908-4645  
**Fax:** (317) 347-9591  
[bgraves@sescogroup.com](mailto:bgraves@sescogroup.com)

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### **Biography**

Mr. Graves joined SESCO in October 2011 as Director of Technical Operations and was subsequently promoted to Chief Operating Officer in May of 2013. He earned a B.S. in Geology from Indiana University-Purdue University, Indianapolis in 1988. He has 25 years of experience in the environmental consulting industry and has been involved with projects in Indiana, Ohio, Kentucky, Pennsylvania, North Carolina, Maine, New Hampshire, Virginia, and West Virginia. He has experience working in multiple Indiana Department of Environmental Management programs including LUST, UST, ELTF, VRP, State Cleanup, Permitting, Brownfields, and Emergency Response. He also has experience working with USEPA Region 5 to address properties impacted with PCBs. He specializes in site characterization, monitoring and remediation and understands that the thorough investigation of a site, attention to detail and development of a comprehensive conceptual site model will result in the best closure strategy as well as cost savings over the lifecycle of a project. As Chief Operating Officer he manages a staff of highly qualified individuals with roles ranging from Standards Manager to Field Technician and strives to ensure that all are performing to the highest technical and ethical standards.

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### **Representative Experience**

- Phase I and Phase II Environmental Site Assessments for property transactions
- UST/AST investigations and removals
- Site investigation and delineation studies for commercial/industrial and petroleum facilities
- Soil and groundwater investigations involving LNAPL, DNAPL, metals, and other contaminants
- Chlorinated solvent and petroleum vapor intrusion investigations and mitigation
- Soil, groundwater, surface water, and air sampling
- Contaminant fate and transport modeling; groundwater flow modeling
- Geotechnical data evaluation, field activities, and management
- Geophysical investigations including the use of seismic refraction, EM conductivity, and ground penetrating radar
- Pilot testing and feasibility studies
- Hydraulic conductivity testing and analysis
- Groundwater pumping tests to determine aquifer characteristics
- Designed and/or managed remediation strategies ranging from in-situ chemical applications to source removal to mechanical systems
- NPDES and POTW discharge permit preparation

## **Brent A. Graves, LPG**

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- Mechanical remediation system discharge reports
- Management and performance of landfill groundwater monitoring
- Landfill expansion permit management
- Elevation surveying and site mapping
- Rapid response to provide oversight/management of cleanups for train derailments
- Correspondence with clients, attorneys, and regulators
- Application of state and federal regulations

## **Certifications & Training**

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Licensed Professional Geologist – Indiana License #1832

Licensed Professional Geologist – Illinois License #196-000840

American Institute of Professional Geologists - Certification #9940

OSHA Hazardous Waste Site Operator (HAZWOPER) Certified

8 Hour Refresher OSHA Hazardous Waste Site Operator (HAZWOPPER) Certified

OSHA Supervisors Safety Training Course

Groundwater Pollution and Hydrology, The Princeton Course (1995)

PC Applications in Risk Assessment, Remediation, Modeling, and GIS, NGWA (2000)

Applied Ground Water Statistics for Landfills Course (1997)

ASTM Risk Based Corrective Actions Course (1997)

e-RAILSAFE Railroad Safety Training (2010)

## **Associations**

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Midwestern States Environmental Consultant's Association – Chair of Rule Making Committee

## **Publications**

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Bruce, Lyle; Cuthbertson, Jim; Graves, Brent; Ziegler, Scott J.; Kolhatker, Arati. "Anaerobic Degradation was Enhanced Through Sulfate Addition Substantially Increasing Degradation Rate at a Central Indiana Site". National Ground Water Association, May 2007.





**Bradley W. Adams, CHMM**

**Project Manager**

**Suite: 108**

**Phone:** (317) 347-9590 Ext. 31

**Mobile:** (317) 847-9973

**Fax:** (317) 347-9591

[badams@sescogroup.com](mailto:badams@sescogroup.com)

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### **Biography**

Mr. Adams is a Project Manager for the SESCO Group. Mr. Adams received a B.S. with a major in Natural Resources and Environmental Management from Ball State University in Muncie, Indiana. Upon graduation, he worked as a project manager for Alt & Witzig Engineering, Inc. In his more than 17 years of experience, Mr. Adams' responsibilities have included overall project coordination, project direction and closure strategies and included performing Phase I Environmental Site Assessments (ESAs), conducting Phase II site investigations, implementing/overseeing remedial technologies, management of subcontractors, all site reporting requirements, budget management, invoicing and maintaining strong communication with clients and regulators. In addition, Mr. Adams has extensive experience in field data collection and interpretation including soil sampling, groundwater sampling, surface water sampling, soil borings, monitoring well installation, underground storage tank (UST) closures and excavations at UST, LUST, drycleaners and various industrial/manufacturing sites throughout Indiana. Throughout Mr. Adams' career, he has also been involved in health and safety programs and has served as the Health & Safety Manager for a 70-person environmental consulting firm for two years. Mr. Adams continued to perform this type of work for other central Indiana environmental consulting companies prior to coming to SESCO in 2008.

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### **Representative Experience**

- Phase I ESA's and Phase II site investigations in Indiana and Illinois on commercial, residential, industrial, and agricultural properties
- UST/AST investigation and removals
- Mechanical remediation system discharge reports
- Soil, groundwater and air sampling
- Elevation surveying and site mapping
- Phase I and Phase II site investigations at drycleaner facilities in Indiana
- Site investigation and delineation studies for dry cleaner and petroleum facilities
- Chlorinated solvent and petroleum vapor intrusion investigations and mitigation
- Management of 15+ Shell Oil Products US (SOPUS) gasoline retail station projects throughout Indiana
- Correspondence with clients, attorneys and regulators
- All project reporting requirements
- Health & Safety Plans (HASPs), H&S field audits, H&S Training, H&S policies and procedures
- Application of state and federal regulations

**Certifications & Training**

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OSHA 40-hour CFR 1910.120 Hazardous Waste Site Operator Certified (HAZWOPER), 1995

8-Hour HAZWOPER Refresher, 1997-2013

Certified Hazardous Materials Manager, #13162 (2005)

OSHA 8 Hour Training for Supervisors, 2007

## **APPENDIX B**

### Subcontractor Statements of Qualification

Established 1971

## **MILLER SURVEYING, INC.**

LAND SURVEYING AND ENGINEERING

948 Conner Street ▪ Noblesville, Indiana 46060

(317) 773-2644 ▪ FAX (317) 773-2694 ▪ 1-800-886-2644

Miller Surveying Inc. was founded by Leland D. Miller on April 1, 1971

Miller Surveying Inc. currently has 11 employees with a total of 156 years of experience in surveying (140 years with Miller Surveying Inc.).

Miller Surveying Inc. has extensive files with survey information, which includes Miller Surveying Inc. surveys, surveys by other surveying firms, cornerstone information, County Surveyor records, old deeds, old maps, etc.

The following types of assignments comprise approximately 90% of the total billings of Miller Surveying Inc.

1. Surveyor's Location Reports (unstaked reports for mortgage purposes)
2. Retracement surveys and original surveys for private individuals, realtors and developers.
3. ALTA/ACSM Land Title Surveys
4. Topographic Surveys
5. Site Plans and House Stakes for home builders
6. Subdivision Plats
7. Construction layout for commercial buildings, road constructions and new subdivisions
8. Design surveys for engineering companies and architects
9. Drawing and Descriptions for proposed projects
10. Easement Drawing and Descriptions
11. Replat of portions of existing subdivisions
12. Elevation Certificates (LOMA)
13. Drawing and Descriptions for classified forests
14. Deed research
15. Easement surveys
16. Computation of client deeds
17. Location of monitoring wells for environmental engineers

Established 1971

# **MILLER SURVEYING, INC.**

LAND SURVEYING AND ENGINEERING

948 Conner Street ▪ Noblesville, Indiana 46060

(317) 773-2644 ▪ FAX (317) 773-2694 ▪ 1-800-886-2644

## **Lee Miller, LS**

### ***President/Project Manager***

Over 54 years experience in:

- Management
- ALTA/ACSM Land Title Surveys
- Legal Research
- Site Planning
- Retracement Surveys
- Original Surveys
- Topographic Surveys
- Construction Layout
- Preparation of Property Descriptions
- Preparation of Easement Descriptions

## **K. Nathan Althouse, LS**

### ***Director of Land Surveying***

Over 16 years experience in:

- Legal Research
- Boundary Surveys
- Topographic Surveys
- Surveyor's Location Reports
- ALTA/ACSM Land Title Surveys
- Preliminary Subdivision Design
- Stormwater and Detention Calculations
- Preparation of Property Descriptions
- Preparation of Easement Descriptions
- Monitoring Well & Soil Boring Surveys
- Construction Control Layout
- Engineering Surveys
- Site Surveys
- Utility Surveys

**Martin Jones**  
***Project Surveyor***  
***Autocad Technician***

Over 13 years experience in:

- Auto-cad
- Construction Staking
- ALTA/ACSM Surveys
- Surveyors Location Reports
- Topographic Surveys
- Legal Research
- Route Surveys
- Right of Way Exhibits
- Easement Exhibits
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Monitoring Well & Soil Boring Surveys

**Brad Dean**  
***Director of Residential and Commercial Design***  
***Senior Autocad Technician***

Over 19 years experience in:

- AutoCAD

Over 15 years experience in:

- Construction Staking
- Construction Layout
- Commercial Site Plans
- Commercial Grading Plans
- Commercial Landscaping Plans
- Commercial Utility Plans
- Commercial Erosion Control Plans
- Topographic Surveys
- ALTA/ACSM Surveys
- Topographic Surveys
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Estimating
- Elevation Certificates
- LOMA Certificates
- Flood Plain Designation
- Septic Design
- Residential Site Plans
- Safety Manager

**Brian Hovermale**  
*Crew Chief*  
*21 Years*

- Commercial Site Plans
- Commercial Grading Plans
- Commercial Landscaping Plans
- Commercial Utility Plans
- Commercial Erosion Control Plans
- Topographic Surveys
- ALTA/ACSM Surveys
- Topographic Surveys
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Monitoring Well & Soil Boring Surveys
- Surveyors Location Reports
- Site Surveys
- Utility Surveys
- Construction Staking
- Elevation Certificates
- LOMA Certificates
- Residential Site Plans

**Burton Rhea**  
*Crew Chief*  
*11 Years*

- Commercial Site Plans
- Commercial Grading Plans
- Commercial Landscaping Plans
- Commercial Utility Plans
- Commercial Erosion Control Plans
- Topographic Surveys
- ALTA/ACSM Surveys
- Topographic Surveys
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Monitoring Well & Soil Boring Surveys
- Surveyors Location Reports
- Site Surveys
- Utility Surveys
- Construction Staking
- Elevation Certificates
- LOMA Certificates
- Residential Site Plans

**Adam Althouse**  
***Crew Chief***  
***4 Years***

- Commercial Site Plans
- Commercial Grading Plans
- Commercial Landscaping Plans
- Commercial Utility Plans
- Commercial Erosion Control Plans
- Topographic Surveys
- ALTA/ACSM Surveys
- Topographic Surveys
- Original Surveys
- Retracement Surveys
- As-Built Surveys
- Monitoring Well & Soil Boring Surveys
- Surveyors Location Reports
- Site Surveys
- Utility Surveys
- Construction Staking
- Elevation Certificates
- LOMA Certificates
- Residential Site Plans

**Conner Brown**  
***Rod Man***  
***1 Years***

**Juan Garcia**  
***Rod Man***  
***6 Months***



Established 1971  
**MILLER SURVEYING, INC.**  
LAND SURVEYING AND ENGINEERING  
948 Conner Street ▪ Noblesville, Indiana 46060  
(317) 773-2644 ▪ FAX (317) 773-2694 ▪ 1-800-886-2644

**Leland D. Miller**

LS 800-40083  
August 1, 1970  
State of Indiana

Highway Technician Degree  
Purdue University  
May, 1958

Date of Employment  
April 1, 1971 to present

LS 20400007  
January 12, 2004  
State of Indiana

**K. Nathan Althouse**

Associate Degree  
Architectural Engineering Technology  
Purdue University  
May 14, 2003

Bachelor of Science  
Construction Engineering  
Purdue University  
May 9, 2001

Associate Degree  
Civil Engineering Technology  
Purdue University  
May 12, 1999

Date of Employment  
April 15, 2004 to present

**Brad Dean**

Associate Degree  
Architectural Design  
Lincoln Tech Institute  
August 15, 1998

Date of Employment  
August 31, 1998

**Martin Jones**

Associate Degree  
Land Surveying & Engineering  
Vincennes University  
August 15, 3003

Date of Employment  
January 12, 2008

# MORGAN CLARK ASSOCIATES

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ENVIRONMENTAL CONSULTANTS

## STATEMENT OF QUALIFICATIONS

Morgan Clark Associates, LLC (Morgan Clark) is a woman-owned business located in Vincennes and Indianapolis, Indiana that provides specialty Phase I Environmental Site Assessment services to state and local governments, financial institutions, Economic Development Corporations, consulting firms, developers and legal firms. All of our personnel have 10-25 years of experience conducting Phase I assessments. Most of our professionals have over 25 years of experience in general consulting services, including assistance with EPA Brownfield grant applications and administration, Phase II investigations, Superfund and LUST investigations, redevelopment consulting and remediation oversight. Morgan Clark personnel also have more than 30 years of experience in state and federal regulatory programs, including RCRA, CERCLA, TSCA, SDWA, UST, LUST, asbestos, lead and soil/groundwater investigations.

What makes Morgan Clark significantly different from standard consulting services is that Phase I work is the only thing that we do. Full-service environmental consulting firms in Indiana have partnered with Morgan Clark for their Phase I clients, because we offer a specific service at better than competitive prices and staff the projects with seasoned professionals.

Morgan Clark personnel who perform site work are required to have completed a 40-hour training course for hazardous waste activities in compliance with federal OSHA 29 CFR 1910.120. Additionally, an 8-hour refresher course is requested every year. Copies of all certificates are on file and will be provided on request.

### **PROFESSIONAL SERVICES**

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- Phase I/AAI Compliant Environmental Site Assessments
- Brownfield Redevelopment Consulting
- Targeted Superfund Assessments
- Brownfield Grant Applications
- Investigation Project Referrals

Morgan Clark partners with consulting firms who do offer investigation capabilities, if that service is required. Since our personnel have conducted investigations and remediation in the past, we are able to communicate the client's need clearly and can offer advice on project scoping, consultant selection, remediation alternatives and redevelopment options.

# MORGAN CLARK ASSOCIATES

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ENVIRONMENTAL CONSULTANTS

## **WHAT OUR PARTNERS DO**

- Phase II Environmental Site Assessments
- Underground Storage Tank Closures and Site Investigations
- Remediation and Monitoring
- Brownfield Redevelopment Services and Grant Assistance
- Historical Insurance Recovery

## **KEY PERSONNEL**

Morgan-Clark environmental professionals have a minimum of ten to thirty-five years of experience to ensure that your project results are of the highest quality possible. Our alliance partners have been selected to enhance our capabilities so that you receive the most comprehensive services at the most affordable cost.

Morgan Clark personnel have experience in contracting with commercial lenders, brokers, real estate professionals, developers, purchasers of property, local units of governments and EPA Brownfield Assessment Grantees to conduct Phase I Environmental Site Assessments and Targeted Superfund Assessments on specific sites. Activities included due diligence activities, quarterly reports, developing public outreach materials and preparing site summaries for use in marketing individual properties.

Special training and conference attendance by Morgan Clark personnel is summarized below:

ASTM Vapor Intrusion Standard Training
Annual National Brownfields Conferences
ASTM E-50 Negotiated Rulemaking Committee – AAI Standard (Commenter, ACHMM)
ASTM RBCA Training for Petroleum Sites
National Brownfield Association Chapter Conference
EDR AAI Training

Key personnel resumes are attached.

## **INSURANCE COVERAGE**

General Liability - \$1,000,000 per occurrence/\$2,000,000 aggregate

Professional Liability - \$1,000,000 per occurrence

Workmen's Compensation – Statutory

# **Morgan Clark Associates**

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ENVIRONMENTAL CONSULTANTS

## **Betsy McNamara, CHMM, C.P. Senior Project Manager**

### Professional Profile

- Phase I Environmental Site Assessments
- Phase II Site Investigations
- Baseline Environmental Assessments
- Superfund Investigations
- RCRA Hazardous Waste Facility Closures
- Underground Storage Tank Closures
- Brownfield Assessment Grants
- Brownfield Remediation
- Environmental Compliance Auditing
- State Hazardous Site Investigations

### **Education**

B.S. Chemistry, Math & Physics, University of Illinois, Urbana, Illinois  
M.S. Management courses, Aquinas College, Grand Rapids, Michigan

### **Professional Summary**

Ms. McNamara has over thirty years of experience in environmental site investigations, soil and groundwater remediation, LUST/UST closures, facility permitting and closure, regulatory compliance, U.S. EPA Brownfield/Superfund/USTfield Assessment Grant applications and project management, MDEQ LOE/PM project management, and wastewater treatment. Experience includes assisting nationwide industrial, governmental, banking and insurance clients and their legal representatives with issues regulated under state and federal environmental programs.

### **Project Experience**

Prepared U.S. EPA Brownfield Assessment Grants, Superfund Redevelopment Grant and Supplemental Greenspace funding applications for numerous Michigan governmental units. Managed projects under the grants that included Inventories, Phase I/II ESAs, BEAs, Due Care Plans, cleanup planning, Brownfield plan development and review, community outreach and redevelopment planning. Assisted private clients with risk management and reuse options for commercial/industrial sites, affordable housing development; and coordination of projects for state funding for waterfront redevelopment and department of transportation grants. Responsible for business development for Brownfield redevelopment services to units of government, developers, banks and brokers. Supervised project teams on project activities and managed activities related to business planning proposal development and financial management.

Performed Phase I and Phase II ESAs for Brownfield Assessment Grant Projects, financial institutions, industrial and automotive facilities, real estate developers, property managers, and insurance companies using ASTM-05 and AAI protocols.

Performed and managed underground storage tank closures and release investigations, including delineation activities, assessment reports, corrective action plans and risk assessments.

Prepared Facility Operating Permits for Hazardous Waste Treatment/Storage/Disposal Facilities (TSDFs) in Michigan. Participated in the startup of the tertiary municipal wastewater treatment facility in

# Morgan Clark Associates

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ENVIRONMENTAL CONSULTANTS

## Betsy McNamara

Kalamazoo, Michigan and developed and implemented TSDF closures for automobile manufacturing facilities, foundries, industrial facilities and waste treatment recycling facilities in MI, IL, OH, IN, WI, MS, CO, FL, CT, NJ, CA and Canada.

Conducted environmental compliance audits for metal fabricating facilities, plastics forming facilities, electronic equipment manufacturing facilities, metal plating operations and automobile manufacturing facilities.

Laboratory Director of a suburban Chicago, Illinois potable drinking water plant. Determined chemical doses for treatment chemicals and conducted analytical analyses of water for trace metals, bacteriology, general chemistry and organic compounds. Has been certified by USEPA for general chemistry and trace metals analyses of drinking water using atomic absorption techniques; and by Illinois Department of Public Health for bacteriological analyses. Assisted USEPA personnel in development of atomic absorption methods for graphite furnace analyses of lead and cadmium.

## Representative Project Experience

### *Site Remediation, Indiana Department of Transportation*

Project Manager for a \$500,000 underground storage tank remediation on a former INDOT maintenance site prior to redevelopment for pharmacy construction. Supervised remediation contractors, managed the project budget, screened excavated soil for disposal, documented daily remediation activities, obtained closure samples and prepared cleanup documentation report.

### *Brownfield Assessment Grants*

Prepared and submitted assessment grant applications for numerous cities in Indiana and Michigan. Since 1998 has provided consulting services to the cities of Vincennes IN, Allegan MI, Wayne County IN, and a consortium of Detroit area municipalities to conduct areawide Phase I and Phase II ESAs, community outreach, quarterly reporting and agency liaison activities. Projects included investigation of large industrial sites and contaminated land planned for Greenspace activities.

### *Brownfield Investigations*

Former Blackford Glass Site, Vincennes, Indiana – Conducted an AAI/ASTM compliant Phase I ESA on the former glass manufacturing and coal gas manufacturing plant that was abandoned in the late 1960s. The investigation identified two coal gas manufacturing plants that operated from the early 1900s to the late 1950s, cinder and ash landfilling on the northern portion of the site and fuel storage. Prepared a Phase II work scope to investigate RECs to evaluate the need for cleanup funding prior to construction of Indiana Military Museum that is planned for the parcel. This Brownfield redevelopment will be the endpoint of Vincennes' Riverwalk project that will link the museum with the Wm. Henry Harrison National Park, downtown Vincennes and Vincennes University.

Johnson Bulk Oil, Vincennes, Indiana – Conducted a peer review of previous consultants work to evaluate the need for cleanup funding prior to restoration of the site as the historical walnut grove associated with President Wm. Henry Harrison's residence. This Brownfield redevelopment is planned as the northern entry point to the historic Riverwalk greenspace project from Vincennes University south to the planned Indiana Military Museum.

# **Morgan Clark Associates**

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ENVIRONMENTAL CONSULTANTS

## **Betsy McNamara**

### **Training and Certifications**

Certified Hazardous Materials Manager, Masters Level, #11095  
Certified Underground Storage Tank Professional, State of Michigan  
40-Hour Hazwoper Training  
8-Hour Supervisor Training  
ASTM RBCA Training for Petroleum Release Sites  
ASTM Vapor Intrusion Standard Training

### **Professional Affiliations**

National Brownfield Association  
ACHMM Governmental Affairs Subcommittee  
ASTM E-50 Subcommittee, Phase I Environmental Site Assessments  
Indiana and Michigan Associations of Environmental Professionals



# Morgan Clark Associates

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ENVIRONMENTAL CONSULTANTS

## **Marian L. Hensley** Senior Project Manager

### Professional Profile

- Phase I Environmental Site Assessments
- NEPA Site Assessments
- Environmental Compliance Auditing
- Asbestos Assessments
- Indoor Air Quality
- Industrial Hygiene
- Mold Assessments
- Lead in Paint Assessments

### **Education**

B.A. History, Indiana University

### **Professional Summary**

Ms. Hensley has over 12 years of experience in conducting environmental assessments of property for government agencies, lending institutions and industrial clients. Ms. Hensley regularly interacts with national account managers, insurance representatives, property managers, school districts and various remediation and construction contractors. She has been involved with proposal writing, budgeting, scheduling, personnel and laboratory coordination, QA/QC of final reports, sales and marketing. She has performed over 600 environmental site assessments following specific ASTM and AAI requirements of a broad range of properties, including manufacturing, commercial, medical, recycling, transportation, automotive and retail facilities as well as single and multi-tenant residential properties, filling stations and vacant land. Ms. Hensley has been responsible for assisting clients with meeting and maintaining compliance with state and federal regulations pertaining to asbestos, lead-based paint, indoor air quality and traditional industrial hygiene. She is experienced in catastrophe response situations with commercial, medical and residential properties, including those impacted by Hurricane Katrina in New Orleans, Louisiana.

### **Project Experience**

Indoor Air Quality/Sensient Flavors/Indianapolis, Indiana.

Performed industrial hygiene air sampling for carbon dioxide, carbon monoxide, temperature, relative humidity and various acids to determine employee exposure levels. Also performed area monitoring and personal exposure monitoring for noise exposure. Where applicable, determined whether employees were being exposed above the OSHA permissible exposure limit during the course of an eight-hour shift. This sampling took place over the course of several days and several shifts.



# **Morgan Clark Associates**

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ENVIRONMENTAL CONSULTANTS

## **Marian L. Hensley**

Asbestos Inspection/Diocese of Lafayette, Haynes International, Indiana

Conducted asbestos inspections and AHERA re-inspections of building materials for various schools and manufacturing facilities. The scope and duration of these projects ranged from several days for school re-inspections to several weeks for manufacturing sites, including updating CAD-based facility drawings.

Microbial Remediation Oversight/VeriClaim - Beau Rivage Resort and Casino, Biloxi Mississippi; Confidential Insurance Companies - Hotels, Hospitals and Office Buildings Various Locations in Louisiana.

Project Manager responsible for overseeing the actions of the Certified Industrial Hygienist of record and the on-site remediation contractor, and scheduling available staff to meet client needs. Responsible for moisture mapping, visual assessments, remediation plan preparation, post-remediation air sampling, document review, enforcing use of best industry practices, ensuring compliance with approved scope-of-work, monitoring project status and schedule, updating clients and final report preparation. When appropriate, attended daily project meetings and issued verbal and written updates to the client regarding progress and potential concerns. These multi-million dollar projects took place over several months with a rotating staff.

Environmental Site Assessment/Candlewood Hotels/Various Locations throughout US

Managed a portfolio of forty-six nationwide sites. Provided coordination of the Phase I Environmental Site Assessments with project personnel, assigned projects to regional offices and provided senior management review of the reports. Also performed numerous additional Phase I ESAs and limited asbestos surveys for this client at hotel properties. Work for this client was performed over the course of several years.

Environmental Site Assessment/Walgreens/Various Locations throughout the US

Completed numerous Phase I ESAs and limited asbestos surveys on varied property types including retail shopping centers, commercial office buildings, banking facilities, medical clinics, industrial facilities, filling stations, restaurants, residential buildings, various retail facilities, and vacant parcels. These assessments often involved several parcels, portions of, or entire city blocks. Typical timeframes for these projects was approximately three weeks and work for this client was performed over the course of several years. Phase II work resulting from the Phase I Environmental Site Assessments was often also awarded.

## **Professional Registrations/Licenses**

State of Illinois Dept. of Public Health, Asbestos Professional License

State of Indiana Dept. of Environmental Management, Asbestos Inspector License

## **Morgan Clark Associates**

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ENVIRONMENTAL CONSULTANTS

### **Marian L. Hensley**

The American Indoor Air Quality Council, Certified Microbial Investigator (CMI)  
State of Indiana Lead Risk Assessor

### **Training**

40-Hour HAZWOPER Certified, per OSHA Standard 29CFR 1910.120

### **Professional Affiliations**

Indianapolis Commercial Real Estate Women  
Member of the American Indoor Air Quality Council  
Indiana Environmental Association Professionals

# **Morgan Clark Associates**

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ENVIRONMENTAL CONSULTANTS

## **Stephanie Deckard Project Manager**

### **Professional Profile**

- Phase I and II Environmental Site Assessments
- Soil and Groundwater Sampling
- Wetland Delineation
- Hydrogeologic Investigations
- LUST Investigations
- Solid and Hazardous Waste Management
- Industrial Site Assessments

### **Education**

B.A. Geology, Indiana University Purdue University Indianapolis

### **Professional Summary**

Ms. Stephanie Deckard is a consulting Project Manager for Morgan Clark with over 13 years of experience conducting Phase I Environmental Site Assessments. Ms. Deckard received a B.A. with a major in Geology from Indiana University Purdue University at Indianapolis (IUPUI). Upon graduation, she worked as a project manager for Groundwater & Environmental Services (GES) in Exton Pennsylvania, conducting Phase I and Phase II site assessments, soil and groundwater sampling, and technical report writing. Ms. Deckard returned to Indiana where she worked as a project manager for Lee & Ryan Environmental Consulting, Inc. Duties included project management, technical report writing, field investigations, soil and groundwater sampling, hydrogeologic investigations, and wetland delineation. Ms. Deckard also performed environmental investigations pertaining to leaking underground storage tanks, dry cleaner facilities, industrial properties, and solid and hazardous waste storage facilities.

### **Project Experience**

- Phase I ESA's in Indiana, Ohio, Illinois, New Jersey, and Pennsylvania of commercial, industrial, residential, and agricultural properties (2000-Present).
- LUST investigations and remedial projects (Indiana, Ohio, Illinois, Nebraska, Georgia, Pennsylvania 2000-2013).
- Wetland Delineation (2006-2008)

### **Project Experience**

OSHA Hazardous Waste Site Operator Certified (HAZWOPER), March 2000  
8-Hour HAZWOPER Refresher, 2000-2013



## STATEMENT OF QUALIFICATIONS

Prism GeoImaging, Inc., established in January 2008, provides geophysical and subsurface imaging services to public and private sector clients. Prism GeoImaging, Inc. is eager to represent your organization as a technically independent extension of your professional staff. Our goal is to provide you with excellent service using senior, highly experienced personnel, and maintain cost-effective rates for our services. We will provide you with responsive and professional service using dedicated and skilled personnel.

### ***PROFESSIONAL SERVICES***

The professional services we have provided to our clients are diverse. We have considerable experience in the application of geophysics to many areas including environmental investigation and remediation, geotechnical engineering, construction, water supply, natural resources, archeology, and cultural resource management. We are able to derive innovative and effective solutions to most subsurface imaging problems. If expert witness or litigation support services are required, we can provide this level of service. Services we have provided to private and public sector clients include the following:

- Search for underground storage tanks (USTs) and steel drums
- Mapping of municipal or industrial landfills
- Brownfield site investigations of historical infrastructure and wastes
- Contaminant plume and pathway detection and mapping
- Depth to bedrock and rippability analysis
- In-situ shear wave ( $V_s100$ ) velocity determination, via MASW, ReMi, Cross-hole and down-hole seismic
- Sand and gravel mapping
- Aquifer characterization and mapping
- Karst limestone investigations
- Borehole geophysical and video logging
- Relict utility mapping (not subsurface utility engineering or SUE)
- High resolution examination of pavement, floors, and walls
- Characterization of historic and prehistoric cemeteries and settlements

**PERSONNEL**

Prism GeoImaging is wholly owned by John Vanderlaan. A brief description of his professional experience is presented below, and a resume for Mr. Vanderlaan is available by request.

**JOHN VANDERLAAN, LPG, PG:** Mr. Vanderlaan is a founding Principal of Prism GeoImaging, Inc. and has been a professional practicing geophysicist since 2000. He is a Licensed Professional Geologist in Indiana (#IN2146), Tennessee (#00005722), Illinois (#196.001362); and a Professional Geologist in Kentucky (#KY-2534). He has been engaged in a variety of engineering and environmental projects including subsurface geophysical investigations, site characterization studies, and environmental remediation operations. Mr. Vanderlaan's specialty is characterization of the subsurface using the geophysical methods of electromagnetic conductivity and metal detection, two-dimensional electrical resistivity, downhole logging, seismic refraction, seismic MASW, ground-penetrating radar (GPR), and gravimetry. Mr. Vanderlaan also has expertise in Global Positioning System (GPS) instruments, operation and software, and the incorporation of GPS positioning information with geophysical data acquisition. Mr. Vanderlaan has an M.S. in Geology from Bowling Green State University in Ohio, and a B.S. in Geology from Calvin College in Grand Rapids, Michigan.

**PARTIAL CLIENT LIST**

Prism GeoImaging, Inc. has proudly served the following clients since our inception in 2008:

- Ortman Drilling
- Peerless Midwest
- Bowser-Morner, Inc.
- Capitol Engineering
- Consulting Services Incorporated of Kentucky
- Earth Exploration, Inc.
- Patriot Engineering and Environmental, Inc.
- Active Environmental
- Alliance Environmental
- American Structure Point

- ARCADIS
- Ark Engineering Services
- Astbury Environmental Engineering (Wilcox)
- ATC Associates, Inc.
- August Mack Environmental, Inc.
- Bruce Carter Associates (BCA)
- Delta Consultants
- Environ
- Environmental Consultants + Contractors Inc. (ECC)
- Environmental Resources Management (ERM)
- HydroTech
- IWM Consulting Group
- Professional Service Industries (PSI)
- RMT, Inc.
- Roux Associates, Inc.
- SESCO Group
- TetraTech
- Troy Risk, Inc.
- Case New Holland
- Duke Energy
- Plews Shadley Racher & Braun
- Town of Brownsburg, Indiana

### **LOCATION**

Prism Geolmaging, Inc. is a small business enterprise, fully insured (see below), with offices in Hamilton County, Indiana. Our contact info is presented below. Lacking the corporate overhead, Prism Geolmaging, Inc. can provide quality services at cost effective prices. With the shrinking budgets for both public and private sector operations, Prism Geolmaging, Inc. realizes that project cost management is an important consideration for every client.

We appreciate the time you have spent reviewing our Statement of Qualifications and sincerely hope that Prism Geolmaging, Inc. can be of service to you in the near future. We will make every effort to provide you with responsive and efficient service to complete your project on time and on budget. Please do not hesitate to call us if we can be of any assistance.

John Vanderlaan, LPG  
President/ Geophysicist  
11057 Allisonville Road, #144  
Fishers, Indiana 46038-2331  
Phone: 317-379-5796  
Fax: 317-849-5755  
E-mail: [jvanderlaan@prismgeo.com](mailto:jvanderlaan@prismgeo.com)

## ***INSURANCE***

The insurance coverages that Prism Geolmaging, Inc. routinely carries are presented below. Additional and/or increased coverages can be obtained upon request.

General Liability	
Each Occurrence	\$1,000,000
Premises/Operations Limit	\$300,000
Products-Completed Operations Aggregate Limit	\$2,000,000
Personal & Advertising Injury Limit	\$1,000,000
General Aggregate (per Project)	\$2,000,000
Automobile Liability Limit	\$1,000,000
Excess/Umbrella Liability	\$2,000,000
Professional Liability Limit	\$1,000,000
Worker's Compensation and Employers' Liability	Statutory Limits
Medical Expense Limit (Any One Person)	\$5,000

# HOOSIEREQUIPMENTSERVICE, INC.—ENVIRONMENTAL CONSTRUCTORS

Unearthing Environmental Field Solutions Since 1978

## Company Profile



exceeding expectations.

[www.hoosierequipment.com](http://www.hoosierequipment.com)



# HOOSIEREQUIPMENTSERVICE,INC.—ENVIRONMENTALCONSTRUCTORS

## Unearthing Environmental Field Solutions Since 1978

### |History of Excellence|

#### Why Hoosier Equipment Service?

Hoosier Equipment Service is a family-owned business which has operated out of the Indianapolis area for over 25 years. What began with two brothers and a family history in the retail petroleum business has grown into a successful small business that provides quality remediation and environmental construction services to clients all over the Midwest.

Our experience ranges from installation and removal of underground storage tanks (over 3,000 to date) and aboveground storage tanks to hazardous and industrial waste clean-ups. We have installed remediation systems for both petroleum and chlorinated solvent impacted sites. We've worked at industrial facilities across the Midwest performing decontamination, Industrial Waste Water Treatment installation and upgrades, oil-water separator installation/enhancement and remediation services. Our field staff is certified to work at hazardous waste sites and provide emergency response to hazardous materials incidents. 8-hour refresher courses and physical examinations are performed annually according to Occupational Safety and Health Administration (OSHA) standards.

The employees pictured on the front of this SOQ represent over 96 years of experience specifically with Hoosier Equipment Service. At Hoosier, we're dedicated to providing you with safety on the job, a fair price and some of the most experienced operators in our industry. It's our industry experience which ultimately translates to your **peace of mind**.

### |Qualifications|

- 40 Hour HAZMAT (with annual 8-hour refreshers required)
- Confined Space Entry Trained
- API trained for remediation activities at retail petroleum facilities
- Approved BP Contractor
- Approved CSX Railway Contractor
- Approved Speedway LLC Contractor
- LPS trained
- STI Certified AST Inspectors (3)
- General Contractor's License for Indiana
- Class C Wrecking License for City of Indianapolis
- Certified for the Installation/Removal/Retrofitting of AST's & UST's
- Hoosier Equipment Service Inc. is a woman-owned business currently seeking state and local WBE certification

### |Services|

#### Remediation Services

- Remediation System Installation
  - a. SVE
  - b. Air sparge
  - c. Pump and treat
  - d. Multi-phase extraction
- Removal and disposal of impacted soil (Haz& Non-Haz)
- RCRA clean-up activities
- CERCLA/Superfund clean-up activities
- In-Situ Soil Stabilization
- Solidification
- Lagoon Closure
- Lead/mercury abatement
- ORC/HRC and other reactive agent application

#### Environmental Construction

- Underground & Aboveground Storage Tank System (UST & AST) installation, removal, retrofitting, upgrades and inspections.
- Petroleum, oil and lubrication (POL) system installation.
- Landfill capping
- Demolition

#### Industrial Services

- Waste Water Treatment Installation
- Air knife line location
- Decontamination activities
- Oil/water separator installs, removals and clean-outs
- Confined Space Entry activities

### |Insurance|

#### Full Coverage-Pollution Liability /WC/GL/UMB

In addition to General Liability insurance, Hoosier holds an Excess Liability/ "Umbrella" policy in the amount of \$5 million. We also carry \$2 million occurrence, \$2 million aggregate Pollution policy. Contractors carrying excess liability (commonly referred to as umbrella policies) are **not** routinely covered in an environmental mishap, such as contractor caused contamination. A pollution policy, in addition to the excess liability policy, is necessary to ensure adequate coverage.

# HOOSIEREQUIPMENTSERVICE, INC.—ENVIRONMENTALCONSTRUCTORS

Unearthing Environmental Field Solutions Since 1978

## Board of Directors I

### **Heidi J. (Farmer)Brumback, President**

[hbrumback@hoosierequipment.com](mailto:hbrumback@hoosierequipment.com)

Heidi is responsible for the overall leadership and direction of Hoosier Equipment Service. Heidi is particularly focused on growing existing client relationships and identifying other opportunities in the region. Heidi also assists in estimating and internal project management, including identifying and hiring sub-contractors. She was certified in 2003 as an Aboveground Tank Inspector and is medically qualified and trained in health and safety with OSHA 29 CFR1910.120 to enter hazardous waste sites. Heidi joined her family's business in 2002 after working at Simon Property Group post graduation. In 2006, Heidi became a majority owner of Hoosier Equipment Service. She earned her BS in Finance & Economics from Barry University in Miami, FL. While attending Barry, Heidi earned a four year scholarship as a member of the women's basketball team.

### **Jef Farmer, Vice President**

Jef is responsible for market research and identifying market trends. He assists in the field, as needed, and holds a Class A CDL which allows him to help out with the logistics of getting equipment to and from jobsites. Prior to purchasing Hoosier Equipment Service in 1978, Jef owned a couple "mom and pops" gas stations in the Central Indiana area. He understands the complex issues facing today's retail gas station owners. He has personal experience in redeveloping two brownfield sites located in Indianapolis, IN and Dallas, Texas. JEF received his early education at Decatur Central High School, Vincennes University, and Murray State University at Murray, Kentucky. He has been involved with many environmental construction projects over the past 32years, and has enhanced that experience with frequent job-related training programs, including HAZWOPER. In 1989 JEF accomplished specialized training in Liquid Storage Tank Installation at the University of Wisconsin College of Engineering's Dept. for Professional Development. In 2010 he received the State of Indiana Underground Storage Tank Certification for Decommission and remains current as of February, 2012.

### **Charles D. Farmer,Vice President**

Charles Farmer earned a Bachelor of Science Degree from Indiana State in 1969. To that, Charlie added extensive studies at North Carolina State University, and many hours of specific environmental-related training in "Petro-Tite" Tank Testing, Confined Entry, various HazMat courses, and a broad background in the construction business. For 17 years Charlie was General Superintendent of Land Improvement for the City of Indianapolis' Department of Parks and Recreation. For the last 18 years he has served "Hoosier" as the Vice President of construction services. Mr. Farmer has been Project Manager and Construction Supervisor for numerous storage tank removals and remediation projects throughout the Midwest.

# HOOSIEREQUIPMENTSERVICE, INC.—ENVIRONMENTALCONSTRUCTORS

Unearthing Environmental Field Solutions Since 1978

## |The Hoosier Team |

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### **Jason Wales, Controller**

[jwales@hoosierequipment.com](mailto:jwales@hoosierequipment.com)

Jason joined Hoosier in 2013. As Controller, Jason Wales is an integral part of the “Hoosier” team. Jason manages the company financials, including accounts payable, payroll, and assists in the administration of the company's benefit plans. Jason works closely with clients to ensure accurate and timely invoicing, and manages company records. With his education and experience in Accounting and Business Finance he brings to Hoosier a focused approach on effectively managing company financials.

### **Anne DaVega, Vice President of Business Development**

[adavega@hoosierequipment.com](mailto:adavega@hoosierequipment.com)

Anne joined Hoosier Equipment in the early fall of 2012. Her leadership role involves enhancing existing customer relationships, improving customer feedback and follow-up after job completion, and identifying new clients and potential markets in the Midwest area. Propelled by a passion for this industry, Anne's technical background and extensive sales experience allows her to bring new energy and opportunities to Hoosier Equipment Service that will prove beneficial to both clients and the company. Prior to joining Hoosier Equipment Service in 2012 Anne worked as Account Executive and later, Sales Manager at Pace Analytical Services. Here, Anne earned the respect of environmental professionals throughout the Midwest with her obvious commitment to excellence in client service and responsiveness. From 2002 to 2007 Anne worked as Project Manager at IDEM for five years in the Leaking Underground Storage Tank and State Cleanup Sections in the Office of Land Quality. Anne earned her Bachelor of Arts in Environmental Science from Prescott College in 1998.

### **Larry Deaton, Field Operations Manager**

[ldeaton@hoosierequipment.com](mailto:ldeaton@hoosierequipment.com)

Larry joined Hoosier in 1989 and was transitioned from the field to Field Operations Manager in 2013. Larry has many thousands of hours of experience in the field working on remediation, tank, and industrial projects. Larry Holds a Class “A” CDL, his 40-Hour HAZWOPER and annual 8-hour refresher, is trained as an Emergency Responder to hazardous material incidents, and is certified to install, retrofit, and decommission underground storage tanks in the states of Indiana and Ohio. Larry's years of experience makes him a solid leader of Hoosier's Field Team and helps ensure projects are performed in a safe, efficient, and organized manner.

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# HOOSIEREQUIPMENTSERVICE,INC.—ENVIRONMENTALCONSTRUCTORS

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## I Supervisors I

**Bobby Farmer** –Supervisor, joined Hoosier in 2004

Initial 40-Hour HAZWOPER training in 2006

Trained to enter and decon meth labs

Certified to install, retrofit, and decommission underground storage tanks in the state of Indiana

**Randy French** – Supervisor, rejoined Hoosier in 2009

Initial 40-Hour HAZWOPER training in 1989

Trained as an Emergency Responder to hazardous material incidents

Certified to install, retrofit, and decommission underground storage tanks in the state of Indiana

## I Field Staff I

**Travis Adair** – Environmental Specialist, Joined the team January, 2012

**Jeff Aldrich** – Environmental Specialist, joined Hoosier in November,2005

Initial 40-Hour HAZWOPER training in 2006

“Their experience sets them apart...”

**Jeff Bales** – Environmental Specialist, joined Hoosier in August, 2007

Initial 40-Hour HAZWOPER training in 2007

Certified to decommission underground storage tanks in Indiana

Experienced welder/fabricator

**Brooks Farmer** – Environmental Specialist, joined Hoosier in September, 2004

Initial 40-Hour HAZWOPER training in 2010

**Chad Garver** – Environmental Specialist/ CDL-driver, joined Hoosier in 2013

Initial 40-Hour HAZWOPER training in 2013

Holds a Class “A” CDL

**David Pate** - Environmental Specialist/Chief Mechanic, joined Hoosier in July, 2008

Initial 40-Hour HAZWOPER training in 2009

**Jim Wilmoth** - Environmental Specialist, joined Hoosier in May, 1995

Holds a Class “A” CDL

Initial 40-Hour HAZWOPER training received in 1996

**Marvin Woodruff** - Environmental Specialist, joined Hoosier in March, 1990

Initial 40-Hour HAZWOPER training received in 1990

# HOOSIER EQUIPMENT SERVICE, INC.—ENVIRONMENTAL CONSTRUCTORS

## Unearthing Environmental Field Solutions Since 1978

### Remediation Project Examples

Project:	Excavation of Petroleum Impacted Soil
Date:	Winter 2012
Location:	Indianapolis, IN
Scope:	This project involved the excavation of over 5,000 tons of petroleum impacted soil. There was also significant groundwater encountered during the course of remediation and Hoosier was responsible for proper and timely management and disposal.
Project:	Excavation of Impacted Soil from Former MGP Site and Removal of Former Rail Car/Tank
Date:	Winter 2011
Location:	Auburn, IN
Scope:	This project involved the excavation of MGP waste along with the proper cleaning and management of a former rail car which was present at the site. The project involved soil stabilization, solidification and odor control measures.
Project:	Excavation of Impacted Soil from Former MGP Site
Date:	Fall 2010
Location:	New Albany, IN
Scope:	This project involved the excavation of MGP waste along with the management of a UST which was encountered during the course of excavation.
Project:	Site Clearing, Grading & Shallow Excavation of Impacted Soil (Federal Brownfield Project)
Date:	July 2009
Location:	Goshen, IN
Scope:	This project involved the excavation of approximately 4,000 tons of impacted soils. There was also quite a bit of site clearing and grading that took place prior to the shallow excavation activities. Hoosier implemented erosion control measures that was inspected daily by the City of Goshen. The project also involved maintaining and coordinating the use of a decontamination pad for the trucks subcontracted by Hoosier Equipment to haul the impacted soil off-site.
Project:	Lead Impacted Soil Removal/Building
Date:	Fall-Winter 2003-2004
Location:	Indianapolis, IN
Scope:	This project involved the excavation of approximately 7,700 tons of lead impacted soils. There was also an area beneath a back portion of the building in which contamination extended underneath the building. As Hoosier Equipment Service is a licensed demolition contractor, we were able to demolish a portion of the building and access the remaining impacted soils.
Project:	Goshen Voluntary Remediation Project
Date:	12/2005
Location:	Goshen, IN
Scope:	This project involved shoring to protect a boiler house for the safer removal of two (2)–20,000 gallon heating oil tanks and approximately 2,000 tons of impacted soil.
Project:	PCB Excavation, Placement of Geogrid Fabric BX1100 and Stone
Date:	01/2000
Location:	Indianapolis, IN
Scope:	This project involved remedial activities for soil contaminated areas outside a plant. Placement of 608 square feet of Geogrid Fabric BX1100 and 702 tons of stone were required in four locations. An additional area of 270 square feet of PCB soil contamination required excavation and backfill with 9 tons of stone. Variations in temperature, snow and rain presented the crew with freezing and thawing of the ground. This made the ground soft and challenging to work with. All waste from the project was stored on site under the direction of the client in an approved manner.
Project:	Town of English Environmental Remediation and Demolition Project
Date:	Fall-Winter/1998-1999
Location:	English, IN
Scope:	This project involved the demolition of a gas station and bulk plant storage facility. Hoosier Equipment Service, Inc. also removed and disposed of multiple USTs & ASTs. The project also included excavation and disposal of approximately 8,700 cubic yards of contaminated soil.

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# HOOSIER EQUIPMENT SERVICE, INC.—ENVIRONMENTAL CONSTRUCTORS

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## ***Remediation System Installation Project Examples***

Project: Dual Phase Extraction System (Petroleum Impacted Site)  
Date: September 2012  
Location: Fort Wayne, IN

Project: Dioxanne Treatment System Installation  
Date: Fall/Winter 2011  
Location: South Central Indiana  
Scope: Hoosier was sub-contracted to install exterior sub-surface HDPE piping estimated at over a mile in length (1 ½" and 2" electronic fusion welding) along with internal construction and plumbing of system components. The robust treatment system is housed in a 7,800 square foot building that was pre-existing.

Project: Chlorinated Solvent Remediation System Installation  
Date: February 2012  
Location: Indianapolis, IN

Project: Dual Phase Extraction System Installation  
Date: Summer 2011  
Location: Versailles, IN

Project: Dual Phase Extraction System (Petroleum Impacted Site)  
Date: 2009  
Location: Martinsville, IN

Project: Dual Phase Extraction System (Petroleum Impacted Site)  
Date: 2006  
Location: South Bend, IN

Project: ATD Barrier Well Remediation System – Indianapolis Foundry  
Date: 05/2001  
Location: Indianapolis, IN

Project: Installation of Interim Measures at an Indianapolis Foundry facility  
Date: 6/2002 – 12/2003  
Location: Indianapolis, IN

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# HOOSIEREQUIPMENTSERVICE, INC.—ENVIRONMENTAL CONSTRUCTORS

## Unearthing Environmental Solutions Since 1978

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### ***Storage Tank Installations, Removals and Upgrades***

**Project:** Data Center Sub-Surface Fuel Tank Installation for Back-up Generator Support  
**Date:** Spring 2011  
**Location:** Indianapolis, IN  
**Scope:** Hoosier Equipment Service installed 2- 9700 gallon Fireguard AST's. The tanks were placed in a sub-surface concrete vault to conserve space and were utilized to fuel back-up generators supporting data-critical functions housed in the state of the art facility.

**Project:** AST Installation for Hospital Back-Up Generator Support  
**Date:** Spring 2012  
**Location:** Indianapolis, IN  
**Scope:** Hoosier Equipment Service removed the hospital's existing underground storage tank and installed a 10,000 gallon aboveground storage complete with tank monitoring upgrades.

**Project:** Cummins O/W Separator Demo and Upgrades  
**Date:** 2009  
**Location:** Multiple Facilities (Louisville, Evansville & Fort Wayne)  
**Scope:** Hoosier Equipment was selected in a competitive bid process by different consulting firms hired by Cummins to engineer and oversee the demolition of existing oil/water separator systems and associated drains, lines and adjacent soil and re-install new systems and associated tanks, sumps and lines.

**Project:** AST Equipment Installation  
**Date:** 05/2004  
**Location:** Kennedy Tank/Indianapolis, IN  
**Scope:** Fitzsimmons System shipped equipment and tank accessories to be installed on 18 Kennedy manufactured AST's. Hoosier Equipment Service provided the labor and technical expertise to plumb the tanks with the associated racks and equipment. This contract was through a Halliburton GSA schedule award. Tanks are expected to be shipped to Iraq for use in rebuilding efforts.

**Project:** Grissom Air Force Base 10 oil/water Separators  
**Date:** 11/2002  
**Location:** Grissom Air Force Base/Peru, IN  
**Scope:** Removal of 10 oil/water separators, as well as, associated contaminated soils.

**Project:** Removal of 3 Underground Storage Tanks, Install 2 Aboveground Storage Tanks at Building 593. **Date:** 08/2001  
**Location:** Grissom Air Reserve Base  
Peru, Indiana 46970  
**Scope:** This project involved the removal of (3) two-thousand-gallon underground fuel storage tanks & piping. Hoosier then performed a re-installation of (2) two-thousand-gallon double wall aboveground storage tanks & piping with concrete pad, spill-containment, fuel dispensers and 15'X20' canopy.

**Project:** Removal of 37 Underground Storage Tanks from 15 Different Locations  
**Date:** 09/1999  
**Location:** Bluffton Sub-district, Wabash Sub-district, Warsaw Sub-district, Goshen Sub-district, Angola Sub-district, Fort Wayne Sub-district  
**Scope:** Hoosier Equipment Service removed 37 UST's ranging in size from 1,000 gallons to 10,000 gallons. Remedial action included over excavation and disposal of contaminated soil and disposal of fuel contaminated water.





## Facility Audit Information Package

American Industrial Services

8500 Georgetown Road

Indianapolis, IN 46268

2013



### 1. Facility Identification

Name: American Industrial Services, LLC  
Address: 8500 Georgetown Road  
Indianapolis, IN 46268  
  
Phone Number: 317-871-4090  
Fax Number: 317-871-4094

### 2. Company Organization

American Industrial Services, LLC, is a wholly owned subsidiary of American Environmental Corporation, located at the same address above. American Industrial Services, LLC (AIS) has been in operation since 1999 and provides waste management consulting services as well as transportation of non-hazardous waste, hazardous materials and hazardous waste from client site locations to disposal facilities. AIS is a 10-day transfer facility.

The company organization includes the following management team:

#### **American Environmental Corporation**

President	Jacob Smith
Controller	Steve Walawender

#### **American Industrial Services**

Vice President	Greg Spears
Inside Sales	Krista Duncan
Safety Manager	Kevin Hutchens

### 3. Permits and Authorizations

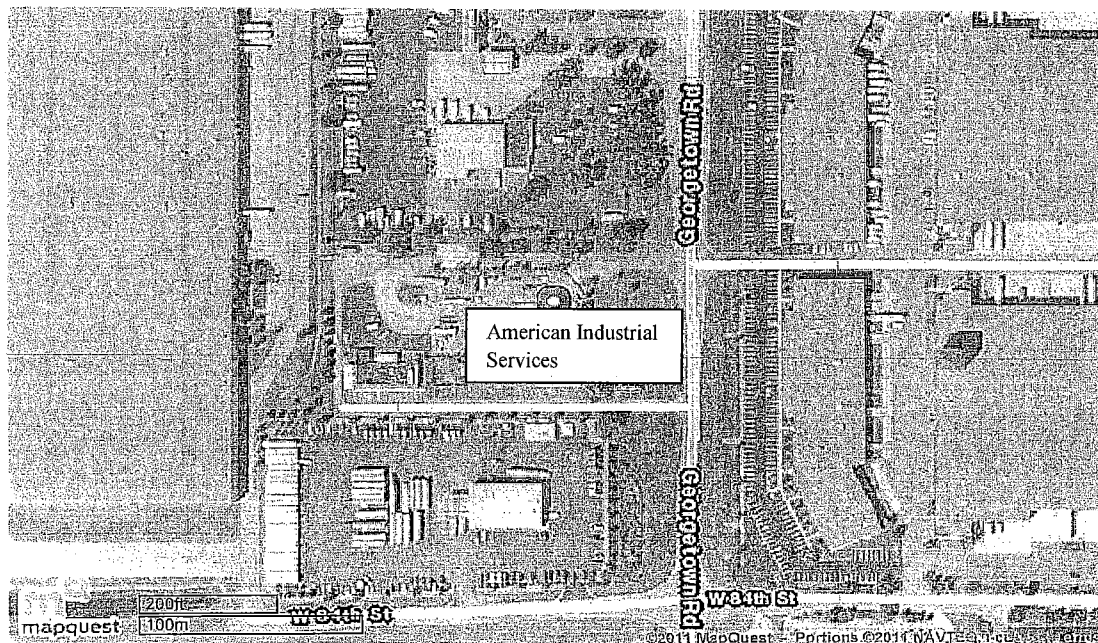
Transport of hazardous materials including hazardous waste requires specific permits and credentials from Federal and State-specific agencies. The permits and authorizations that have been obtained for AIS are included in the table below:

State and Federal Permits and Authorization Table

<b><i>Permit/Authorization/Registration:</i></b>	<b><i>Number:</i></b>	<b><i>Issued by:</i></b>
Hazardous Materials Certificate of Registration	050212 550 075UW	US DOT
DOT Number	533157	US DOT
EPA ID Number	INR000017350	Indiana Department of Environmental Management
Uniform HazMat Transportation Procedures, Uniform Program Credential	UPW-0533157-OH	Public Utilities Commission of Ohio (transport in Michigan also)
Special Waste Hauling Permit	#5151	Illinois Environmental Protection Agency
Certificate of Registration for Hazardous Waste Management Activity	None	Kentucky Department for Environmental Protection
Uniform Program for Liquid Industrial Waste Transportation Credential	LIW 0533157 MI	Michigan Department of Environmental Quality
Registered Collector – Electronic Waste	None	Indiana Department of Environmental Management

**4. Facility Description:**

AIS is located on approximately 5 acres in Indianapolis, IN. The facility is located in an area surrounded by light industrial and commercial activities. The facility is bounded on the north by Penske Truck Rental, on the east by Georgetown Road, on the south by Marten Transport and on the west by Lexington Pharmaceuticals. The facility includes an office and warehouse area. The warehouse storage area is fenced and access to this part of the site is limited. See the attached map of the facility.



AIS has written a hazardous materials security plan in accordance with the Department of Transportation requirements. There is a 24-hour security and fire/heat detection system along with cameras.

## 5. Training, Safety and Response Plans

All AIS employees are given training for jobsite safety and general operations in the warehouse. Employee safety and health is a primary concern for AIS. All needed personal protective equipment is provided to prevent overexposure to hazardous materials or to prevent injuries from general safety hazards.

There is specialized training given to each employee regarding DOT hazardous materials shipping and transportation requirements; and, DOT driving training specific to vacuum tanker or box trucks. In addition to the required DOT hazardous materials regulation training, our employees also receive OSHA Hazwoper 40 hour training, drum handling, defensive driving, American Petroleum Institute – WorkSafe card safety training and training regarding client specific procedures and safety requirements.

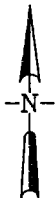
Occasionally, clients will require background checks or other specific security or safety certification. AIS will provide all needed information to ensure the client requirements are met for the anticipated work activities.

All AIS drivers have had required DOT physicals and have current commercial driver's licenses with appropriate hazmat endorsements and threat assessments completed. Required DOT pre-employment and random drug and alcohol testing is performed.

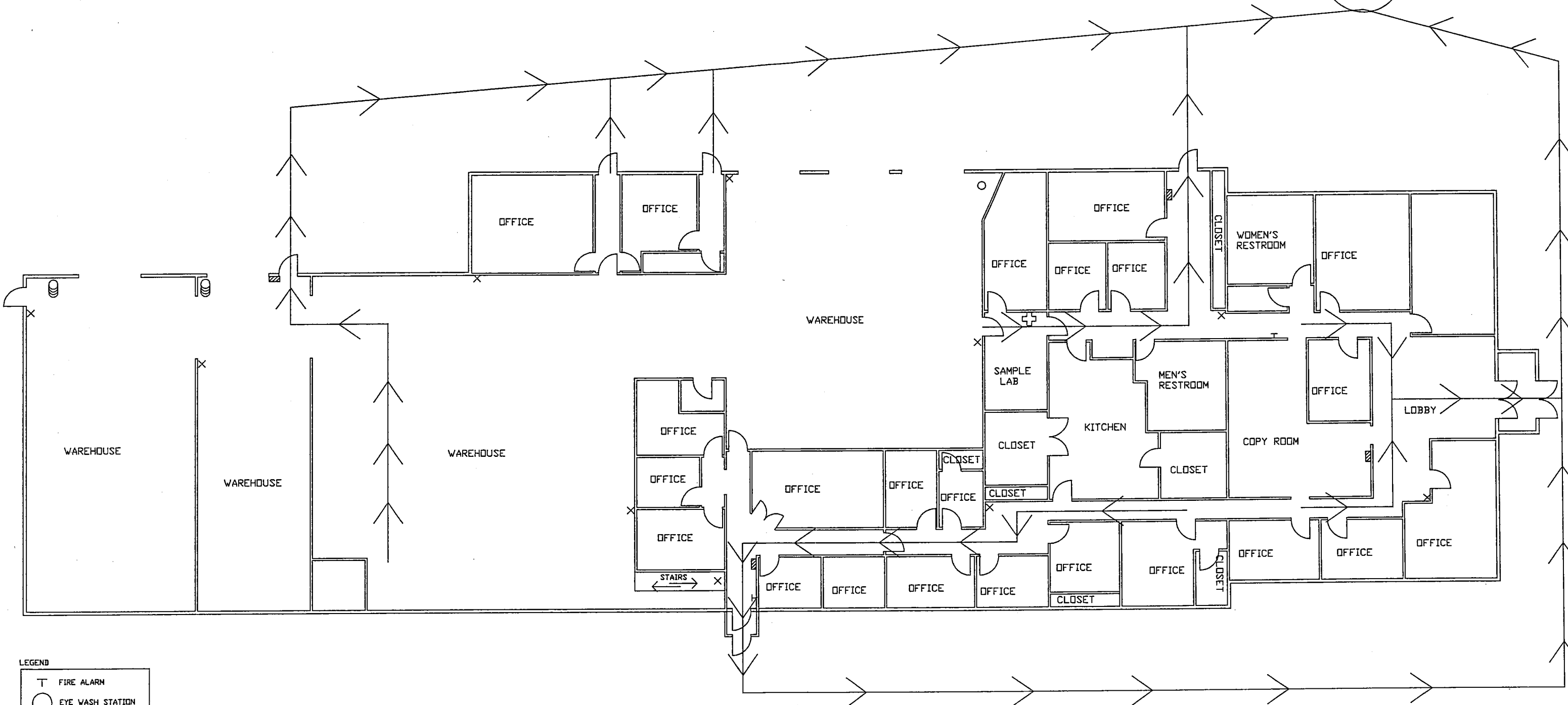
There is a written spill response plan for the warehouse area where drums are stored. Monthly inspections of the fire extinguishers and general housekeeping for this area are also conducted.

## 6. Insurance

AIS maintains general liability, automobile and workers' compensation insurance coverage. A copy of the insurance coverage is attached.



PENSKE  
CONGREGATION  
POINT



LEGEND

- T FIRE ALARM
- EYE WASH STATION
- ▨ SECURITY PAD
- X FIRE EXTINGUISHERS
- + FIRST AID KIT
- SPILL KIT

FACILITY LAYOUT MAP  
AMERICAN ENVIRONMENTAL CORPORATION  
AMERICAN INDUSTRIAL CORPORATION  
AMERICAN DRILLING SERVICES LLC



# CERTIFICATE OF LIABILITY INSURANCE

AMEEN-1

OP ID: C2

DATE (MM/DD/YYYY)

03/05/13

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Tobias Insurance Group 9247 N. Meridian St. Ste. 300 Indianapolis, IN 46260 Albert W. Moss	317-844-7759 317-844-9910	<b>CONTACT NAME:</b> Cliff Buchman <b>PHONE (A/C, No., Ext):</b> 317-844-7759 <b>FAX (A/C, No):</b> 317-815-6036 <b>E-MAIL ADDRESS:</b> cbuchman@tobias.com
<b>INSURED</b> American Environmental Corp. American Drilling Services LLC American Industrial Services, LLC 8500 Georgetown Road Indianapolis, IN 46268		<b>INSURER(S) AFFORDING COVERAGE</b> <b>INSURER A:</b> Zurich American Ins. Company <b>INSURER B:</b> Torus National Insurance <b>INSURER C:</b> Catlin Specialty Insurance Co <b>INSURER D:</b> <b>INSURER E:</b> <b>INSURER F:</b>
		<b>NAIC #</b> 25496 15989

**COVERAGES****CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> GENERAL LIABILITY			CLO582152300(13)	03/01/13	03/01/14	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$ 5,000
							PERSONAL & ADV INJURY \$ 1,000,000
							GENERAL AGGREGATE \$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG \$ 2,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC						\$
	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY			BAP582152500(13)	03/01/13	03/01/14	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS						PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> SCHEDULED AUTOS						\$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB			44475C130AL(13)	03/01/13	03/01/14	EACH OCCURRENCE \$ 5,000,000
	<input type="checkbox"/> EXCESS LIAB						AGGREGATE \$ 5,000,000
	<input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000						\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			SC582152300(13)	03/01/13	03/01/14	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. EACH ACCIDENT \$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	*CONTRACTORS POLL/			CPV673979034(13)	03/01/13	03/01/14	PER CLAIM 5,000,000
	PROFESSIONAL LIAB.						AGGREGATE 5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

\*COVERAGE B - PROFESSIONAL LIABILITY. COVERAGE C - CONTRACTORS POLLUTION LIABILITY, INCLUDING TRANSPORTATION LIABILITY. THIS CERTIFICATE IS A SAMPLE ONLY AND IS INTENDED FOR USE IN BIDDING/MARKETING PURPOSES ONLY. IN THE EVENT THAT OUR INSURED IS AWARDED A CONTRACT, A NEW CERTIFICATE OF INSURANCE WILL FOLLOW.

**CERTIFICATE HOLDER****CANCELLATION**

SAMPLEC

SAMPLE CERTIFICATE  
OF INSURANCE

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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# NOTEPAD

INSURED'S NAME American Environmental Corp.

AMEEN-1  
OP ID: C2

PAGE 2  
DATE 03/05/13

## IF YOU ARE THE RECIPIENT OF THIS CERTIFICATE:

ANY WORDING TO PROVIDE ADDITIONAL INSURED COVERAGE, PROVIDE COVERAGE ON A PRIMARY AND NON-CONTRIBUTORY BASIS, OR PROVIDE A WAIVER OF SUBROGATION APPLIES ONLY WHERE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT.

CONTRACTUAL LIABILITY COVERAGE IS ONLY PROVIDED TO THE EXTENT SET FORTH IN THE POLICIES AND MAY NOT COVER ALL LIABILITY ASSUMED BY THE NAMED INSURED UNDER THE CONTRACT.

## IF YOU ARE THE REQUESTOR OF THIS CERTIFICATE OF INSURANCE:

Tobias Insurance Group has, upon your request, issued the attached Certificate of Insurance.

If you have not already done so, we highly recommend that you provide Tobias Insurance Group with a copy of the insurance and indemnification provisions of the contract pertaining to the Certificate of Insurance request so that we may properly ascertain whether the referenced insurance policies address the limits of insurance, terms and types of coverage required by the contract.

While most Certificates of Insurance can be issued at no cost, the contract may require the purchase of additional insurance coverage that could be subject to an additional premium charge. In some instances, the coverage identified in the contract may be outside the underwriting guidelines of the insurance carrier and cannot be obtained.

Any contract review performed by Tobias Insurance Group should not be construed as the rendering of legal advice or a legal opinion concerning any portion of the contract.

Tobias Insurance Group has not endeavored to identify all potential liability issues that might arise under this contract. This review is provided for information purposes only and should not be relied upon by third parties.

Any description of insurance coverage is subject to the terms, conditions, exclusions and other provisions of the policies and any applicable regulations, rating rules or plans. This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

**UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**



**HAZARDOUS MATERIALS  
CERTIFICATE OF REGISTRATION  
FOR REGISTRATION YEAR(S) 2012-2015**

**Registrant:** AMERICAN ENVIRONMENTAL CORP  
Attn: KRISTA DUNCAN  
8500 GEORGETOWN ROAD  
INDIANAPOLIS, IN 46268

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CFR Part 107, Subpart G.

This certificate is issued under the authority of 49 U.S.C. 5108. It is unlawful to alter or falsify this document.

**Reg. No:** 050212 550 075UW      **Issued:** 05/02/2012      **Expires:** 06/30/2015  
**HM Company ID:** 042657

**Record Keeping Requirements for the Registration Program**

The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

- (1) A copy of the registration statement filed with PHMSA; and
- (2) This Certificate of Registration

Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U. S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made available, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, PHH-52, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC 20590, telephone (202) 366-4109.

PM-31  
(Rev. 1/95)

SERVICE DATE  
May 17, 2000

DEPARTMENT OF TRANSPORTATION  
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

PERMIT

MC 379641 P

AMERICAN ENVIRONMENTAL CORPORATION  
D/B/A AMERICAN INDUSTRIAL SERVICES  
INDIANAPOLIS, IN, US

This Permit is evidence of the carrier's authority to engage in transportation as a contract carrier of property (except household goods) by motor vehicle in interstate or foreign commerce.

This authority will be effective as long as the carrier maintains compliance with the requirements pertaining to insurance coverage for the protection of the public (49 CFR 387) and the designation of agents upon whom process may be served (49 CFR 366). Failure to maintain compliance will constitute sufficient grounds for revocation of this authority.

Service must be performed under a continuing agreement with one or more persons.

Terry Shelton, Acting Director  
Office Data Analysis & Information Systems

NOTE: Willful and persistent noncompliance with applicable safety fitness regulations as evidenced by a DOT safety fitness rating of "Unsatisfactory" or by other indicators, could result in a proceeding requiring the holder of this certificate or permit to show cause why this authority should not be suspended or revoked.



# Alliance for Uniform HazMat Transportation Procedures Uniform Program Credentials



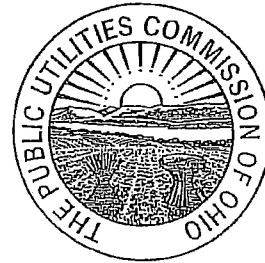
AMERICAN ENVIRONMENTAL CORPORATION  
AMERICAN INDUSTRIAL SERVICES  
8500 GEORGETOWN RD  
INDIANAPOLIS, IN 46268

**ALLIANCE**  
FOR UNIFORM  
**HAZMAT**  
TRANSPORTATION  
PROCEDURES

USDOT Census #	00533157	
MC Docket #	00379641	
EPA Transporter ID #	INR000017350	225266
Intrastate Motor Carrier #:	N/A	273704

Phone Number to call in case of a accident or emergency: (317) 339-1430 -- 24 Emergency HM Contact

Uniform Program ID:	UPW-0533157-OH		
Certified By:	Leonard Shenk		
Issuance Date:	21-Aug-2012	Expiration Date:	01-Oct-2013
Issuing Agency:	PUBLIC UTILITIES COMMISSION OF OHIO		
Agency Telephone:	(614) 466-3392		



Michigan Department of Environmental Quality



**Uniform Program  
for Liquid Industrial Waste  
Transportation Credentials**

KRISTA DUNCAN, JACOB SMITH  
AMERICAN ENVIRONMENTAL CORP  
8500 GEORGETOWN ROAD  
INDIANAPOLIS, IN 46268

Telephone Number in case of accident or emergency: (317) 339-1430

National Uniform Program Credential Number: UPM0533157OH

Michigan LIW Uniform Program Identification Number: LIW0533157MI

Certified by: *Jeanette M. Noechel*

Registration Issued: 1/7/2013

Registration Expiration: 1/7/2014

Issuing Agency: Department of Environmental Quality

Agency Telephone Number: (586)-753-3850 or (586)-753-3846



KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WASTE MANAGEMENT  
CERTIFICATE OF REGISTRATION  
FOR HAZARDOUS WASTE MANAGEMENT ACTIVITY

ISSUED TO:

AMERICAN ENVIRONMENTAL CORPORATION  
dba AMERICAN INDUSTRIAL SERVICES  
8500 GEORGETOWN RD  
INDIANAPOLIS IN 46268

LOCATED AT:

8500 GEORGETOWN ROAD  
INDIANAPOLIS IN 46268

TYPE OF CERTIFICATE: NEW

The Division of Waste Management hereby issues the above-named installation a Certificate of Registration for the hazardous waste activity specified below. This Certificate is issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Conformance with all applicable laws and regulations is the responsibility of the registrant. All rights of inspection by representatives of the Division of Waste Management are reserved.

This Certificate supersedes all previous Certificates of Registration.

EPA ID NUMBER: INR-000-017-350

AI NUMBER: 80781

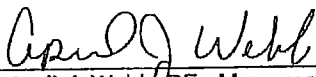
STATE: INDIANA

ISSUED: AUGUST 2, 2006

EFFECTIVE: JULY 12, 2006

EXPIRATION: NONE

ACTIVITY: HAZARDOUS WASTE AND WASTE OIL TRANSPORTER

  
April J. Webb, P.E., Manager  
Hazardous Waste Branch

  
Malinda K. Mays, Environmental Technologist  
Hazardous Waste Branch

Questions concerning this Certificate should be directed to Malinda Mays  
at (502) 564-6716, extension 237, or by e-mail to malinda.mays@ky.gov

Instructions: Section V of the General Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 1010 of the Resource Conservation and Recovery Act).		Notification of Regulated Waste Activity		Date Received (For Official Use Only)	
EPA United States Environmental Protection Agency				MAR 07 2000	
I. Installation's EPA ID Number (Mark "C" in the appropriate box)					
<input checked="" type="checkbox"/> A. Initial Notification		<input type="checkbox"/> B. Subsequent Notification (Complete Item C)		C. Installation's EPA ID Number	
				INR000017350	
II. Name of Installation (Include company and specific site name)					
AMERICAN ENVIRONMENTAL CORP.					
III. Location of Installation (Physical address not P.O. Box or Route Number)					
Street					
8500 GEORGETOWN RD.					
Street (Continued)					
City or Town				State	Zip Code
INDIANAPOLIS				IN	46268-
County Code	County Name				
097	MARION				
IV. Installation Mailing Address (See Instructions)					
Street or P.O. Box					
8500 GEORGETOWN RD.					
City or Town				State	Zip Code
INDIANAPOLIS				IN	46268-
V. Installation Contact (Person to be contacted regarding waste activities at site)					
Name (Last)			(First)		
SPEARS			GREGORY		
Job Title			Phone Number (Area Code and Number)		
MGR INDUST. SERV.			317-871-4090		
VI. Installation Contact Address (See Instructions)					
A. Contact Address Location		B. Street or P.O. Box			
<input checked="" type="checkbox"/> X		<input checked="" type="checkbox"/> X 8500 GEORGETOWN RD.			
City or Town				State	Zip Code
INDIANAPOLIS				IN	46268-
VII. Ownership (See Instructions)					
A. Name of Installation's Legal Owner					
DONALD FISHER					
Street, P.O. Box, or Route Number					
8500 GEORGETOWN RD.					
City or Town				State	Zip Code
INDIANAPOLIS				IN	46268-
Phone Number (Area Code and Number)				B. Land Type	
317-871-4090				<input type="checkbox"/>	
				C. Owner Type	
				<input type="checkbox"/>	
				D. Change of Owner Indicator	
				Yes <input type="checkbox"/> No <input type="checkbox"/>	
				(Date Changed)	
				Month Day Year	

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 10/2/99  
GSA No. 0246-EPA-CF

ID - For Official Use Only  
TNR0000017350

**VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to Instructions)**

A. Hazardous Waste Activity		B. Used Oil Recycling Activities
<input type="checkbox"/> 1. Generator (See Instructions) <input type="checkbox"/> a. Greater than 1000 kg/mo (2,200 lbs.) <input type="checkbox"/> b. 100 to 1000 kg/mo (220-2,200 lbs.) <input type="checkbox"/> c. Less than 100 kg/mo (220 lbs.) <input type="checkbox"/> 2. Transporter (Indicate Mode in boxes 1-5 below) <input type="checkbox"/> a. For own waste only <input checked="" type="checkbox"/> b. For commercial purposes  <b>Mode of Transportation</b> <input type="checkbox"/> 1. Air <input type="checkbox"/> 2. Rail <input checked="" type="checkbox"/> 3. Highway <input type="checkbox"/> 4. Water <input type="checkbox"/> 5. Other - specify _____	<input type="checkbox"/> 3. Treater, Storer, Disposer (at installation) (Note: A permit is required for this activity; see Instructions) <input type="checkbox"/> 4. Hazardous Waste Fuel <input type="checkbox"/> a. Generator Marketing to Burner <input type="checkbox"/> b. Other Marketers <input type="checkbox"/> c. Boiler and/or Industrial Furnace <input type="checkbox"/> 1. Smelter/Refinery <input type="checkbox"/> 2. Small Quantity Exemption <input type="checkbox"/> Indicate Type of Combustion Device(s) <input type="checkbox"/> 1. Utility Boiler <input type="checkbox"/> 2. Industrial Boiler <input type="checkbox"/> 3. Industrial Furnace <input type="checkbox"/> 5. Underground Injection Control	<input type="checkbox"/> 1. Used Oil Recycling Marketer <input type="checkbox"/> a. Marketer Directs Shipment of Used Oil to Off-Specification Burner <input checked="" type="checkbox"/> b. Marketer Who First Claims the Used Oil Meets the Specifications <input type="checkbox"/> 2. Used Oil Burner - Indicate Type(s) of Combustion Device <input type="checkbox"/> a. Utility Boiler <input type="checkbox"/> b. Industrial Boiler <input type="checkbox"/> c. Industrial Furnace <input type="checkbox"/> 3. Used Oil Transporter - Indicate Type(s) of Combustion Device(s) <input checked="" type="checkbox"/> a. Transporter <input checked="" type="checkbox"/> b. Transfer Facility <input type="checkbox"/> 4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies) <input type="checkbox"/> a. Process <input type="checkbox"/> b. Re-refine

**IX. Description of Regulated Wastes (Use additional sheets if necessary)**

**A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)**

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic (List specific EPA hazardous waste number(s) for the toxicity characteristic contaminant(s))
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

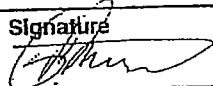
**B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)**

1	2	3	4	5	6
7	8	9	10	11	12

**C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number; See Instructions.)**

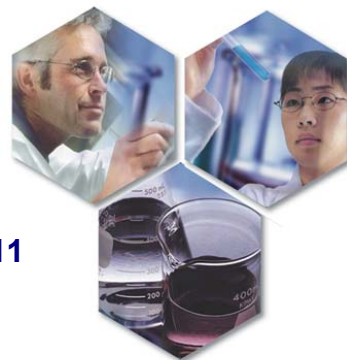
1	2	3	4	5	6

**X. Certification**  
 I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature 	Name and Official Title (Type or print) Gregory L. Spears, Industrial Services mgr.	Date Signed 2/29/2000
--	--	--------------------------

**XI. Comments**

**Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)**



## Statement of Qualifications



**Prepared by:**

**Pace Analytical Services, Inc.**

**1700 Elm Street  
Minneapolis, MN 55414**

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# 1. Company Introduction and History

## Introduction to Pace Analytical

Pace Analytical Services, Inc. (Pace Analytical) was formed in 1995 through the purchase of seven laboratories from PACE Incorporated. Steve Vanderboom, President and CEO, and majority shareholder Rod Burwell, Pace Analytical's Chairman, formed the company after the shareholders of PACE Incorporated decided to sell all the laboratories and leave the environmental laboratory business. Mr. Burwell has provided the solid financial backing necessary in order for our laboratories to maintain a key leadership role in the analytical testing industry. His efforts include furnishing our facilities with state-of-the-art instrumentation and well-trained personnel.

Today, Pace Analytical is a privately held, full service sampling and analytical services firm operating a network of 15 laboratories and 9 service centers and Satellite Pickup Locations nationwide. All of our full-service laboratories are NELAC accredited. Our laboratories utilize U.S. EPA, ASTM, Standard Methods, NIOSH, and other accepted test procedures and methods, in accordance with federal and state regulations.

The company consists of six divisions: Analytical Services, Product and Material Testing, Field Services, Professional Services, Lab Equipment Sales and Service, and Life Sciences. Pace Analytical maintains a comprehensive list of certifications and methodologies throughout our laboratories. In addition to offering full service environmental analytical services, Pace Analytical provides the following specialty environmental testing services:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Dioxin / Furan</li> <li>• Biota</li> <li>• Air Toxics</li> <li>• Industrial Hygiene</li> <li>• Microbiological</li> <li>• Mixed Waste Characterization</li> <li>• Vapor Intrusion</li> </ul> | <ul style="list-style-type: none"> <li>• Asbestos</li> <li>• Aquatic Toxicity / Bioassay</li> <li>• Radiochemistry</li> <li>• PCB Congeners</li> <li>• On-Site Gas Phase FTIR</li> <li>• Field Sampling and Analysis</li> </ul> |
|---|---|

## Company Philosophy and Operating Principles

We are continually building Pace Analytical on a foundation of our **Mission Statement**, **Statement of Purpose** and our **Core Values** that guide our decisions each day. Strict adherence to our Core Values, as we model our capabilities and services to meet our customers' needs, will be the primary key to our future success.

- **Mission Statement**  
Working together to protect our environment and improve our health
- **Statement of Purpose**  
To meet the business needs of our customers for high quality, cost-effective, analytical measurements and services
- **Core Values**

-Integrity	-Value Employees
-Know Our Customers	-Honor Commitments
-Flexible Response to Demand	-Pursue Opportunities
-Continuously Improve	



## **Your Total Testing Resource**

To become a strong business, Pace Analytical laboratories have consistently worked to increase efficiencies, hire and nurture strong analysts, maintain high quality services and utilize the most modern instrumentation and systems available. As a service provider, our bottom-line has been to assist our customers in meeting their business objectives. With this goal in mind, we work with our clients to develop sound solutions by utilizing our skills, technical experience and modern instrumentation. Today, Pace Analytical has evolved from “just” a network of environmental laboratories into a company of solution providers.

Undoubtedly, the ultimate benefit to our customers is the total integration of all our service offerings into one company – Pace Analytical. While some companies may provide some of the same services, our offerings are unmatched by anyone. Our complement of environmental testing services, outsourced chemistry services and experienced problem-solvers make Pace Analytical uniquely qualified to service all of your analytical requirements.

## **Investment in Applied Technologies**

Pace Analytical's investment in applied technologies provides our clients with faster results, enhanced quality, accurate reporting packages and easy to interpret test results. An example of our commitment to technology is EPIC (Environmental Projects Information Control System), Pace Analytical's laboratory information management system, which is installed in each of our laboratory locations. EPIC is based on an Oracle database, which gives the system the flexibility to adapt to many of your specific project requirements. The system allows us to create standardized reports, methods, and invoices. Through uniform operations, we are able to understand and complete your request, regardless of which lab is performing your analyses.

Other investments in a new accounting system, analytical instrumentation and laboratory facilities have standardized our services from location to location and have provided our clients with the most up-to-date technologies available.

## **PacePort: Online Data Management**

Pace Analytical provides convenient online data access and report management services to enable better communication and quicker access to your project-critical information. PacePort is a powerful web-based data management tool designed specifically for our customers. With up-to-the-minute access to project and test data from your computer, you have a quick and reliable resource for obtaining the information you need – *when you need it.*

## **Data You Can Count On**

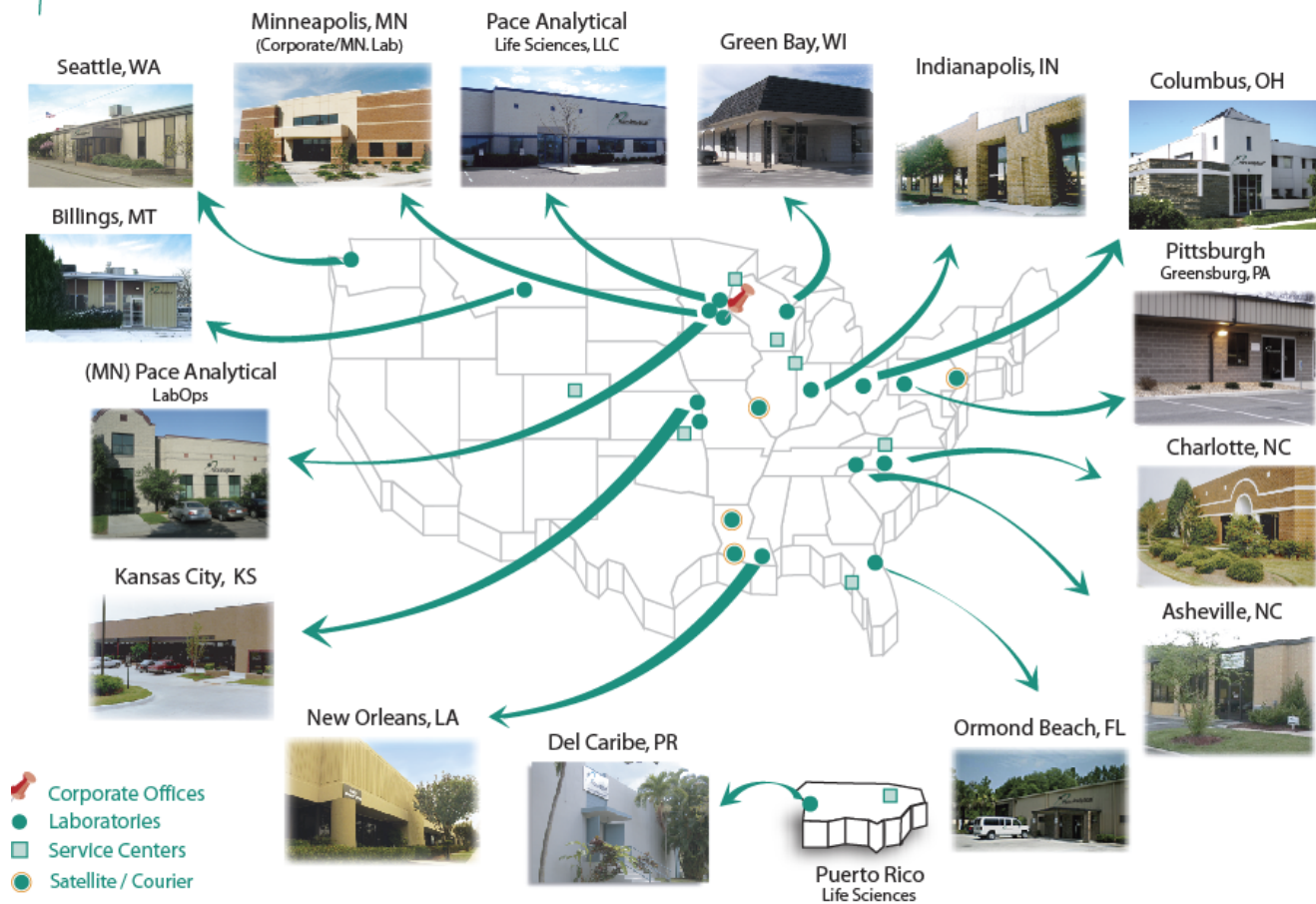
We have all heard the horror stories concerning invalid results and investigations into laboratories that are producing fraudulent data. This in itself is enough to prove that all laboratories are not created equal. Analytical methods contain highly complicated procedures that provide the opportunity for incompetent laboratories with poor management oversight to cut corners in data generation without the knowledge of the end user.


Pace Analytical ensures the quality of our data by employing a strong management team with experienced and qualified supervisors and analytical staff. Our corporate quality department has made considerable progress in standardizing our SOPs, internal auditing process, and providing quality oversight in each of our laboratories. All full service Pace Analytical laboratories are NELAP accredited.


## 2. Laboratory Locations





**Pace Analytical Services**  
15 Laboratories  
9 Service Centers





<b>Asheville, NC</b>		<b>Address:</b> 2225 Riverside Drive Asheville, NC 28804	<b>Tel:</b> (828) 254-7176 <b>Fax:</b> (828) 252-4618
<b>General Manager:</b> Jeff Graham		<b>Sales Contact:</b> Jenny Snipes	<b>Quality Manager:</b> Barry Johnson
<b>Personnel Overview:</b> Number of Personnel ..... 23 Technical Personnel ..... 12 Support Personnel ..... 11 BS/BA ..... 16		<ul style="list-style-type: none"><li>• Well-equipped, 8,000 ft<sup>2</sup> laboratory, providing:<ul style="list-style-type: none"><li>- Full wet chemistry and metals analysis</li><li>- Aquatic bioassay and product testing</li></ul></li><li>• Sampling services include:<ul style="list-style-type: none"><li>- groundwater, wastewater and soil</li></ul></li><li>• NPDES pre-treatment and monitoring analyses</li></ul>	
<b>Major Instrumentation:</b> 2 Discrete Analyzer 2 Lachat Automated Analyzer 2 Mercury Analyzers 2 ICPs			
<b>History:</b> Originally part of Environmental Testing, Inc., the Asheville laboratory was acquired by PACE, Inc. in January 1990. The laboratory was included in the purchase which formed Pace Analytical in 1995. The laboratory specializes in Inorganic and Aquatic Toxicity testing – providing services to clients across the country. The Asheville laboratory works in conjunction with the Pace Analytical Charlotte laboratory to support organic testing requirements and provide lab services for much of the southeastern region.			


<b>Charlotte, NC</b>		<b>Address:</b> 9800 Kinsey Ave. Ste. 100 Huntersville, NC 28078	<b>Tel:</b> (704) 875-9092 <b>Fax:</b> (704) 875-9091
<b>General Manager:</b> Jeff Graham		<b>Sales Contact:</b> Jenny Snipes	<b>Quality Manager:</b> Cheryl Johnson
<b>Personnel Overview:</b> Number of Personnel ..... 46 Technical Personnel ..... 19 Support Personnel ..... 23 BS/BA ..... 18		<ul style="list-style-type: none"><li>• 12,000 ft<sup>2</sup>, full service laboratory, providing:<ul style="list-style-type: none"><li>- full organic and inorganic analyses</li><li>- air toxics</li><li>- drinking water analyses</li></ul></li><li>• Sampling services include:<ul style="list-style-type: none"><li>- low level Mercury</li><li>- groundwater, wastewater, soil and air</li></ul></li></ul>	
<b>Major Instrumentation:</b> 9 Gas Chromatographs 8 GC/MS Systems			
<b>History:</b> The Charlotte laboratory operation was acquired by PACE, Incorporated from Environmental Testing, Inc. in January 1990. One year later, the operation was moved to a new 12,000 square foot laboratory and organic analysis capabilities were added. In 1995, the laboratory was included in the purchase that formed Pace Analytical Services, Inc. The operation has grown from a staff of 21 in 1995 to more than 40 professionals today. The lab offers full organic analytical services as well as field sampling. The Charlotte laboratory works in unison with the Pace Asheville laboratory to perform the bulk of their inorganic testing.			


<b>Columbus, OH</b>		<b>Address:</b> 1233 Dublin Road Columbus, OH 43215	<b>Tel:</b> (614) 486-5421 <b>Fax:</b> (614) 486-5478
<b>General Manager:</b> Karl Anderson		<b>Sales Contact:</b> Andy Koerner	<b>Quality Manager:</b> Martha Innes
<b>Personnel Overview:</b> Number of Personnel ..... 16 Technical Personnel ..... 12 Support Personnel ..... 4 BS/BA ..... 12		<ul style="list-style-type: none"><li>• Well-equipped, 10,200 ft<sup>2</sup> laboratory, providing:<ul style="list-style-type: none"><li>- organic and inorganic analyses</li><li>- drinking water</li><li>- Ohio VAP certification</li></ul></li></ul>	
<b>Major Instrumentation:</b> 5 GC Systems 5 GC/MS Systems 1 ICP 3 Discrete Analyzers <div>1 ICP/MS 1 AA Graphite Furnace 1 Mercury Analyzer</div>			
<b>History:</b> The Columbus laboratory has been in operation since 1988. This laboratory was once part of the Zande organization which was acquired a couple of years ago by Stantec, and most recently the lab has been privately held under the name Alpha Omega Environmental Laboratory. Although there have been a series of ownership changes, the staff has remained consistent throughout. Pace Columbus provides full service environmental testing in addition to drinking water, waste water and landfill support throughout Ohio and surrounding states.			

<b>Ormond Beach, FL</b>		<b>Address:</b> 8 East Tower Circle Ormond Beach, FL	<b>Tel:</b> (386) 672-5668 <b>Fax:</b> (386) 674-4001
<b>General Manager:</b> Bob Dempsey		<b>Sales Contact:</b> Mike Valder	<b>Quality Manager:</b> Myron Gunsalus, Jr.
<b>Personnel Overview:</b>  Number of Personnel ..... 52 Technical Personnel ..... 28 Support Personnel ..... 24 BS/BA ..... 38		<ul style="list-style-type: none"><li>• 11,000 ft<sup>2</sup>, full service laboratory, providing:<ul style="list-style-type: none"><li>- SW846 organics and inorganics</li><li>- Extensive Drinking Water capabilities</li><li>- Support UST and Groundwater testing</li></ul></li><li>• FL NELAC</li></ul> Additional certifications throughout the US	
<b>Major Instrumentation:</b> 10 Gas Chromatographs 7 GC/MS Systems 2 Mercury Analyzers 1 ICP			
1 ICP/MS 2 Lachat Automated Analyzer 2 Ion Chromatograph 3 HPLC			
<b>History:</b> The ELAB (Florida) laboratory operation was purchased by Pace Analytical in 2008. ELAB began operations in 1974 under the name Envirolab and provided analytical support services to the clients of its parent environmental engineering company – Briley, Wild and Associates. The Pace Analytical Florida laboratory is headquartered in Ormond Beach, Florida with a service center located in Tampa. In addition to the environmental services it performs, the Florida Laboratory has become one of the premier drinking water testing facilities in the nation. The extensive list of environmental and drinking water certifications allows the company to perform testing in most areas of the United States and the Commonwealth of Puerto Rico.			


<b>Green Bay, WI</b>		<b>Address:</b> 1241 Bellevue Street Green Bay, WI 54302	<b>Tel:</b> (920) 469-2436 <b>Fax:</b> (920) 469-8827
<b>General Manager:</b> Nils Melberg		<b>Sales Contact:</b> Mark Hampton	<b>Quality Manager:</b> Kate Grams
<b>Personnel Overview:</b> Number of Personnel ..... 71 Technical Personnel ..... 45 Support Personnel ..... 26 BS/BA ..... 40		• 27,000 ft <sup>2</sup> , full service laboratory, providing: - full organic and inorganic analyses - drinking water microbiology analysis	
<b>Major Instrumentation:</b> 17 Gas Chromatographs 15 GC/MS Systems 1 ICP 1 ICP/MS 3 Low Level Mercury Analyzers 2 Mercury Analyzers 2 Ion Chromatographs 1 Lachat Automated Analyzers 2 LL Hg 1 Methyl Mercury Analyzers			
<b>History:</b> The former En Chem Green Bay laboratory was acquired by Pace Analytical Services, Inc. in October, 2004. The Green Bay facility specializes in quick turnaround UST samples along with routine analysis of organic and inorganic samples. The Pace Green Bay lab offers a wide variety of services, including CLP level packages and electronic deliverables. In addition to routine environmental matrices, the Green Bay laboratory has extensive experience in sediment work and biological tissue analysis.			


<b>Indianapolis, IN</b>		<b>Address:</b> 7726 Moller Road Indianapolis, IN 46268	<b>Tel:</b> (317) 875-5894 <b>Fax:</b> (317) 872-6189
<b>General Manager:</b> Karl Anderson		<b>Sales Contact:</b> Andy Koerner	<b>Quality Manager:</b> Beth Schrage
<b>Personnel Overview:</b> Number of Personnel .....51 Technical Personnel .....30 Support Personnel .....21 BS/BA .....34		<ul style="list-style-type: none"><li>• Well-equipped, 17,600 ft<sup>2</sup> laboratory, providing:<ul style="list-style-type: none"><li>- organic and inorganic analyses</li><li>- industrial hygiene services</li><li>- air toxics</li><li>- Ohio VAP certification</li></ul></li></ul>	
<b>Major Instrumentation:</b> 11 Gas Chromatographs 9 GC/MS Systems 2 ICPs  1 UV/VIS Spectrophotometer 1 Mercury Analyzer 1 Lachat Automated Analyzer			
<b>History:</b> The Indianapolis Laboratory became part of the Pace Analytical laboratory network in 1998. Pace Analytical acquired the ATC Associates Laboratory (IN) and the Core Laboratory (IN) from Core Labs. The two operations were combined into the current facility and now provide full analytical services as well as specialty analyses with regional coverage for Indianapolis, Ohio, Kentucky and eastern Illinois.			

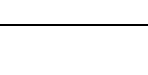
<b>Kansas City, KS</b>		<b>Address:</b> 9608 Loiret Boulevard Lenexa, KS 66219	<b>Tel:</b> (913) 599-5665 <b>Fax:</b> (913) 599-1759
<b>General Manager:</b> David Neal		<b>Sales Contact:</b> Clayton Campbell	<b>Quality Manager:</b> Charles Morrow
<b>Personnel Overview:</b> Number of Personnel ..... 66 Technical Personnel ..... 33 Support Personnel ..... 33 BS/BA ..... 42		<ul style="list-style-type: none"><li>• 17,500 ft<sup>2</sup> , full service laboratory, providing:<ul style="list-style-type: none"><li>- full organic and inorganic analyses</li></ul></li><li>• Sampling services include:<ul style="list-style-type: none"><li>- groundwater                      - soil</li><li>- wastewater                      - bioassay</li></ul></li><li>• Large project capacity</li></ul>	
<b>Major Instrumentation:</b> 7 Gas Chromatographs 9 GC/MS Systems 2 Ion Chromatographs 1 Lachat Automated Analyzer			
<b>History:</b> The Kansas City laboratory operation has been in existence for more than 37 years and began as part of Langston Laboratories. In 1989, the laboratory was purchased by PACE, Incorporated and moved into a newly constructed laboratory facility in 1990. The facility was designed and built as an environmental laboratory. In 1995, the Kansas City lab was included in the purchase of the labs that formed Pace Analytical Services, Inc. Recently, the lab has been renovated and enlarged to focus on customer service, workflow processing and increased capacity. The Kansas lab is an 18,000 square foot facility located in Lenexa, KS. Included in the Kansas lab network is the SE Kansas microbiological laboratory and Service Centers in Dallas, Denver, Wichita and St. Louis. These facilities provide comprehensive coverage in the Central Plains region including Arkansas, Colorado, Iowa, Illinois, Kansas, Missouri, Oklahoma, New Mexico, Nebraska, Northern Texas, Utah and Wyoming.			


<b>Minneapolis, MN</b>		<b>Address:</b> 1700 Elm Street, Ste 200 Minneapolis, MN 55414	<b>Tel:</b> (612) 607-1700 <b>Fax:</b> (612) 607-6444
<b>General Manager:</b> Sarah Cherney – Environmental Donald Stock – Field Services		<b>Sales Contact:</b> Mary Sitko – Environmental Tom Halverson – Field Services	<b>Quality Manager:</b> Melanie Ollila – Environmental Aaron Fredrikson – Field Services
<b>Personnel Overview:</b>  Number of Personnel ..... 97 Technical Personnel ..... 52 Support Personnel ..... 53 BS/BA ..... 60		<ul style="list-style-type: none"><li>• 49,000 ft<sup>2</sup>, full service laboratory, providing:<ul style="list-style-type: none"><li>- full organic &amp; inorganic analyses</li><li>- air toxics (vapor intrusion)</li><li>- microbiology</li><li>- collision cell</li><li>- high resolution mass spec (dioxin, PCB congener &amp; brominated cmpds)</li></ul></li><li>• drinking water analyses</li><li>• mobile analytical lab</li><li>• Sampling services include:<ul style="list-style-type: none"><li>- groundwater</li><li>- wastewater</li><li>- air (ambient and stack)</li><li>- soil</li></ul></li></ul>	
<b>Major Instrumentation - Environmental:</b> 10 Gas Chromatographs 19 GC/MS Systems 5 HRGC/HRMS Systems 1 Mercury Analyzer 2 Automated Analyzer 2 ICPs 3 ICP/MS 1 Headspace (Dynamic and Static)		<b>Major Instrumentation – Field Services:</b> 12 Field Service Vehicles 2 CEMs Trailers 6 Gas Phase FTIR 1 Portable GC/TCD 25 Gas Analyzers 15 Isokinetic Sampling Trains (Stack Testing) 20 Isco Automatic Samplers Grundfos Pumps and other water sampling equipment	
<b>History:</b> The Minneapolis laboratory operation was started in 1978 by Steve Vanderboom. After the sale of the laboratory to Pace Analytical in 1995, a new laboratory facility was designed and built to house both the laboratory and the corporate offices. The 49,000 square foot facility was completed in 1997 and was designed to emphasize open flow of communications and samples throughout the laboratory and maximize productivity of all lab and field professionals. The laboratory has specialty capabilities including air toxics, collision cell, FTIR, dioxin/furan analysis, KPMS, field services and more.			




<b>Billings, MT</b>		<b>Address:</b> 602 So 25 <sup>th</sup> Street Billings, MT 59101	<b>Tel:</b> (406) 254-7226 <b>Fax:</b> (406) 254-1389
<b>General Manager:</b> Sarah Cherney		<b>Sales Contact:</b> Kathy Smit	<b>Quality Manager:</b> Melanie Ollila
<b>Personnel Overview:</b>  Number of Personnel ..... 12 Technical Personnel ..... 7 Support Personnel ..... 5 BS/BA ..... 10		<ul style="list-style-type: none"><li>• 5,000 ft<sup>2</sup>, full service laboratory, providing:<ul style="list-style-type: none"><li>- inorganic analyses</li><li>- soil processing</li><li>- VPH/EPH</li><li>- Asbestos</li><li>- Chlorophyll A</li></ul></li></ul> NVLAP accredited	
<b>Major Instrumentation:</b> 4 GCs with PID and FID detectors 1 IC 1 Auto Analyzer		2 Ovens 1 Muffle furnace 4 Microscopes	
<b>History:</b> The Billings laboratory serves the Montana, Idaho, northern Wyoming and western Dakotas. The laboratory analyzes a full complement of tests to support the environmental, mining, UST and wastewater markets. The laboratory also specializes in bulk asbestos testing as well as fiber counts across the United States. The Montana laboratory has extensive capabilities and numerous accreditations for the analysis of groundwater, wastewater, soil, hazardous waste and air. The Montana lab provides a full state specific range of organic, water quality and microscopy testing services.			

<b>New Orleans, LA</b>		<b>Address:</b> 1000 Riverbend Blvd. Suite F St. Rose, LA 70087	<b>Tel:</b> (504) 469-0333 <b>Fax:</b> (504) 469-0555
<b>General Manager:</b> Chris Weathington		<b>Sales Contact:</b> Henry Pelitire	<b>Quality Manager:</b> Russell McNiece
<b>Personnel Overview:</b>  Number of Personnel ..... 44 Technical Personnel ..... 23 Support Personnel ..... 21 BS/BA ..... 24		<ul style="list-style-type: none"><li>• 14,000 ft<sup>2</sup>, full service laboratory, providing:<ul style="list-style-type: none"><li>- Appendix IX analyses</li><li>- Full service organic and inorganic analyses</li><li>- Extensive UST capabilities</li><li>- Waste characterization</li><li>- Louisiana RECAP</li><li>- Texas TRRP</li><li>- Alkylated PAHs with Bio markers</li></ul></li><li>• Sampling services for: groundwater, wastewater and soil</li></ul>	
<b>Major Instrumentation:</b> 14 Gas Chromatography 11 GC/MS 1 Cold Vapor Mercury Analyzer 1 Konelab Automated Analyzer 1 SmartChem Automate Analyzer 2 ICPs		1 Thermo Decomposition Amalgamation AA Mercury Analyzer 1 TOC Analyzer 1 Ion Chromatography 1 Microwave Extractor 1 UV Vis Spectrophotometer 1 TOX Analyzer	
<b>History:</b> The New Orleans laboratory has been in operation since 1967. Originally part of Gulf South Research Institute (GSRI), the laboratory has also been known as the Gulf South Environmental Labs, Inc. (GSELI), Applied Bioscience, Incorporated (APBI) and PACE, Incorporated, before being purchased by Pace Analytical Services, Inc. in 1995. While several name changes have occurred, many key personnel remain with the company to this day. The New Orleans laboratory is a 14,000 square foot facility that provides full organic and inorganic analyses in accordance with RCRA, CWA, SDWA, TSCA and UST programs – for a variety of matrices. In addition, certain special services, including full valid data packages and electronic deliverables. The New Orleans lab supports services for Southern Texas, Louisiana, Mississippi, Alabama and Florida. New Orleans also provides services to Puerto Rico from its San Juan Service Center.			

<b>Schenectady, NY</b>		<b>Address:</b> 2190 Technology Drive Schenectady, NY 12308	<b>Tel:</b> (518) 346-4592 <b>Fax:</b> (518) 381-6055
<b>General Manager:</b> Dan Pfalzer		<b>Sales Contact:</b> Marty Rowan	<b>Quality Manager:</b> Christina Braidwood
<b>Personnel Overview:</b> Number of Personnel..... 41 Technical Personnel ..... 22 Support Personnel ..... 19 BS/BA ..... 27		<ul style="list-style-type: none"> <li>• 15,000 ft<sup>2</sup>, full service laboratory, providing:</li> <li>- full organic and inorganic analyses</li> <li>- air analysis for PCBs by TO-10A &amp; TO-4A</li> <li>- Low level PCB water analysis Aroclors 50 ng/L (PPT) or PCB Congener 9 ng/L (PPT) total PCB</li> <li>- PCB Congener Blood/Serum analysis</li> <li>- PCB Congener Analysis by Green Bay or CQCS 8082 (all 209 congeners)</li> <li>- PCB Homolog Analysis by USEPA 680</li> <li>- AVS/SEM</li> <li>- Biota Lab</li> </ul>	
<b>Major Instrumentation:</b>			
14 Gas Chromatographs (GC/ECD) 5 Gas Chromatographs (GC/PID/FID) 5 GC/MS Systems 1 Mercury Analyzer 1 Automatic Absorption Spectrometer 72 units Soxhlet Extraction Apparatus		2 Total Organic Carbon Analyzer 1 ICP 1 Milestone Ethos EX Microwave Extraction System (MES) 4 – Dionex ASE 200 Accelerated Solvent Extractor 16 units Horizon SPE-DEX 4790 Series Automated Solid Phase Extractor	
<b>History:</b> The Schenectady laboratory operation was started in 1989 by Robert E. Wagner, Lab Director and Robert W. Stoll under Northeast Analytical (NEA). This laboratory is the newest acquisition for Pace Analytical Services. The laboratory is 15,000 square feet originally specializing in high resolution PCB analysis and expanded its analytical services in the 1990's to include: Inorganics, Metals, Volatiles (VOCs) and Semi-volatiles (SVOCs). Although the laboratory has expanded its services, it has stayed at the forefront of PCB measurement and research. We have developed congener specific PCB analytical methodology that have supported many programs investigating PCB problems and issues in several major river systems in the United States.			

<b>Pittsburgh, PA</b>			<b>Address:</b> 1638 Roseytown Rd Suites 2, 3, 4 Greensburg, PA 15601	<b>Tel:</b> (724) 850-5600 <b>Fax:</b> (724) 850-5601
<b>General Manager:</b> Bob Wyeth			<b>Sales Contact:</b> Richard Hixson	<b>Quality Manager:</b> Randal Hill
<b>Personnel Overview:</b>			<ul style="list-style-type: none"> <li>• 18,000 ft<sup>2</sup>, full service laboratory, providing: <ul style="list-style-type: none"> <li>- SW846 organics and inorganics</li> <li>- Extensive UST capabilities</li> <li>- Waste and mixed waste characterization</li> </ul> </li> <li>• PA DEP Drinking Water Certified</li> <li>• NRC low level license</li> </ul>	
<b>Major Instrumentation:</b>				
6 Gas Chromatographs			2 ICP	
7 GC/MS Systems			1 Lachat Automated Analyzer	
1 Mercury Analyzers			1 HPLC	
<b>History:</b>				
<p>The Pittsburgh laboratory has been in operation since 1982. The laboratory was originally known as Antech. Ltd before being purchased by Pace Analytical Services, Inc. in May 2002. While the name changed, many key personnel remained with the operation. The new 18,000 square foot facility located in Greensburg provides full organic and inorganic analyses in accordance with RCRA, NPDES, TSCA, and 10 CFR 61 waste data packages and electronic deliverables. The laboratory also supports the radiochemistry testing needs for some of the largest organizations in the United States who are actively involved in the monitoring of radioactivity. Courier services are also available upon request. The Pittsburgh lab supports the Mid-Atlantic region which includes Pennsylvania, New Jersey, New York, Maryland, Delaware and West Virginia.</p>				



<b>Seattle, WA</b>		<b>Address:</b> 940 So Harney St Seattle, WA 98108	<b>Tel:</b> (206) 767-5060 <b>Fax:</b> (206) 767-5063
<b>General Manager:</b> Dave Neal	<b>Sales Contact:</b> Lisa Domenighini	<b>Quality Manager:</b> Rich Henson	
<b>Personnel Overview:</b> Number of Personnel ..... 25 Technical Personnel ..... 22 Support Personnel ..... 3 BS/BA ..... 23	<ul style="list-style-type: none"><li>• Well-equipped, 15,000 ft<sup>2</sup> laboratory, providing:<ul style="list-style-type: none"><li>- Organic and Inorganics analyses</li><li>- Microbiology</li></ul></li><li>• Sampling services include:<ul style="list-style-type: none"><li>- groundwater, wastewater, soil, and air (ambient &amp; stack)</li></ul></li></ul>		
<b>Major Instrumentation:</b> 8 Gas Chromatographs 5 GC/MS Systems 2 Ion Chromatographs 2 Mercury Analyzers			
1 Astoria Pacific Automated Analyzer 2 High Performance Liquid Chromatographs 1 ICP 1 ICP/MS			
<b>History:</b> Pace Analytical's Seattle laboratory is a full-service analytical laboratory with vast experience in all facets of DOD, CERCLA, RCRA and CWA programs. For more than 100 years, this laboratory has provided analytical chemistry and microbiological services for environmental, industrial manufacturing, clinical pharmaceutical, toxicological and mineralogical customers. The laboratory was purchased by Pace Analytical Services, Inc. in 2008 and provides more laboratory capacity for Pace's expanding federal market.			

## 3. Capabilities



### Environmental Analytical Services

Pace Analytical offers extensive capacity for organic and inorganic analysis as well as a broad range of specialty services, which allows us to meet the environmental analytical needs of our customers. In addition, our investments in consistency and standardization provide us with the ability to maximize the capabilities and capacity of all the laboratories, providing extra assurance that client turn-around times are met. Pace Analytical provides services through an integrated system of modern, fully equipped laboratories that can analyze a variety of sample matrices ranging from air and water, to hazardous wastes.

#### Pace Analytical's Specialty Analytical Services include:

- Dioxin / Furan
- Biota
- Air Toxics
- Industrial Hygiene
- Microbiological
- Mixed Waste Characterization
- Drinking Water
- Groundwater / Wastewater Sampling
- Low Level Mercury Analysis
- Soil Vapor Intrusion
- Radiochemistry
- PCB Congeners
- Asbestos Testing
- Field Sampling and Analysis

### Life Sciences

Pace Analytical Life Sciences is a full service contract analytical testing laboratory providing chemistry and microbiology testing services to the pharmaceutical and medical device industries. Pace Analytical Life Sciences has been operating since September 2006. In April 2007, the assets of P3 Scientific were purchased. P3 Scientific had been the dedicated contract laboratory to 3M's Pharmaceutical Division since 1996. Our Oakdale, MN facility is a 40,000 square foot laboratory that is equipped with state-of-the-art instrumentation. Our services include methods development/validation, raw material testing, stability testing and storage, product release testing, microbiology testing, chemical characterization, residual chemical analysis and biocompatibility studies. Our laboratory is FDA registered, cGMP compliant, DEA registered and ISO/IEC 17025:2005 accredited.

### Product Testing / Characterization

Specializing in biodegradation studies, Pace Analytical's bio-analytical services group provides research support for existing and new chemistries. Our services include analyte specific measurements using LCMS. Our staff is compliant with 40 CFR – Part 160 guidelines and has extensive experience in study design (incubation parameters, media and inoculum selection) and method development (sample preparation, extraction and measurement method).

### Field Services

Pace Analytical's Field Services Division has more than 25 years experience in serving the national and international environment market.

Using state-of-the-art equipment and over two decades of industry experience and expertise, Pace Analytical provides comprehensive service offerings including: stack testing, ambient air, wastewater, groundwater, soil and waste material testing and sample collection.

The breadth of our testing services is unique in that we monitor all environmental matrices and have experienced a vast array of testing methodologies. While our extensive cross training allows us to move resources to meet the demand, we also foster a staff of experts who proactively study their particular discipline to maintain industry leadership. We excel in unique and complex sampling situations, especially new or changing compliance testing requirements. We have considerable experience in adapting current methodologies to difficult applications as well as developing new procedures.

A successful environmental monitoring project requires a partnership between our customer and our testing experts. Many aspects of administration, production, maintenance and schedule commitments must interact with testing activities to ensure that all project objectives are met. We understand that proper equipment, rigorous maintenance and timely calibrations are paramount to ensuring testing integrity, accuracy and data quality.

To further protect and serve our clients and staff, Pace Analytical is also committed to safety. Field testing activities and working in a multitude of client settings create a unique safety challenge. Pace Analytical places a top priority on employee safety. We provide employees with an extensive safety program that includes frequent training and well-maintained equipment for confined space entry, traffic control, environmental hazards and personal protection. Our safety program not only provides for the welfare of our staff, but also reduces potential liability on our customer's properties. Pace Analytical strives to exceed the safety needs and programs of our clients while on-site.

A significant differentiator for Pace Analytical is that we can analyze nearly every type of sample we collect. We have 17 full-service, nationally accredited and state certified laboratories to support our sampling capabilities. We are one of the few environmental firms that can collect and analyze samples for a complete offering of routine and specialty analysis in any matrix. "Shipping" to us is most often handing samples directly to one of our laboratory colleagues.

## **LabOps**

Pace Analytical Operations can meet your needs for professional technical support activities, operations and laboratory management with your manufacturing facility.

- **Professional Staffing:** Pace Analytical's Professional Staffing division is the high quality solution when it comes to fulfilling your scientific staffing needs. We excel in providing qualified employees that are essential to your success. Whether you have one or two positions to be filled or would like us to staff and manage an entire lab or regulatory team, our flexibility enables us to help you with technician level skill sets through Ph.D. expertise.
- **Regulatory Services:** Pace Analytical's Regulatory Service can aid your business in complying with today's complex global regulations. Our team possesses the knowledge, experience and technical resources necessary to guide your business through the regulatory maze.
- **Lab Equipment – Sales:** Pace Analytical buys and sells refurbished analytical laboratory equipment to companies in various industries worldwide. Pace Analytical's Instrument Support Group (ISG) provides a variety of refurbished analytical instrumentation to various sectors of the analytical industry worldwide. ISG specializes in chromatography equipment including GC, GC/MS, LC and LC/MS. ISG follows GLP and cGMP guidelines where applicable to meet the specific needs of customers and is ISO 9001:2000 certified as part of the LabOps division.

- Lab Equipment – Services: Pace Analytical's Instrument Support Group (ISG) provides instrument maintenance, repair and qualification services on GC, GC/MS, LC and LC/MS. ISG is an excellent option for pharmaceutical, environment petrochemical and food laboratories looking to reduce the cost of instrumentation services, without reducing the quality of the service. ISG follows GLP and cGMP guidelines where applicable to meet the specific needs of customers and is ISO 9001:2000 certified as part of the LabOps division.

Pace Analytical has fifteen laboratories and nine service center locations nationwide. Pace Analytical is able to provide, through our laboratory system, complete capabilities for air toxics analysis, aquatic bioassay, industrial hygiene, dioxin/furan, PCB congeners, microbiology, asbestos, radiochemistry, full organic and inorganic analyses, and mobile laboratories. The following table is a summary of our nationwide capabilities broken down by laboratory.

Capabilities	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas City	Minnesota	Montana	New Orleans	New York	Pittsburgh	Seattle
<b>Inorganics</b>													
Wet Chemistry	•		•	•	•	•	•	•	•	•		•	•
ICP Metals	•		•	•	•	•	•	•		•		•	•
ICP/MS Metals			•	•	•			•					•
CVAA Mercury			•		•			•		•			•
<b>Volatile Organics</b>													
GC(601/602,8021)		•			•	•	•	•	•	•		•	•
BTEX		•	•	•	•	•	•	•	•	•		•	•
GC/MS		•	•	•	•	•	•	•		•		•	•
<b>Semi-volatile Organics</b>													
GC Pest/PCB		•	•	•		•	•	•		•		•	•
GC Diesel		•	•	•	•	•	•	•	•	•		•	•
GC/MS		•	•	•	•	•	•	•		•		•	•
HPLC				•								•	•
<b>Field Services</b>													
Field Sampling	•	•		•			•	•		•		•	
Stack Sampling								•					
Mobile Laboratory								•					
<b>Specialty Services</b>													
Air Toxics								•					
Appendix IX		•			•					•			•
Bacteriological	•			•	•		•	•		•		•	•
Bioassay	•						•						
Dioxins/Furans								•					
PAHs by GC/MS-SIM		•	•		•	•	•	•		•	•	•	•
PCB Congeners								•			•		
Drinking Water	•	•	•	•	•	•	•	•	•	•	•	•	•
CLP SOW Capability										•	•		•
CLP Contract Experience						•				•			•
Radiochemistry												•	
Mixed Waste (Radioactive)												•	
Tissue					•			•					
Industrial Hygiene						•		•					
Asbestos			•						•				

State Program	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas	Minneapolis	Montana	New Orleans	Pittsburgh	Seattle
<b>Additional Accreditations, Approvals, Permits &amp; Licenses</b>												
NELAP	•	•	•	•	•	•	•	•	Δ	•	•	•
EPA CLP								•				
AFCEE								•				
U.S. ACOE								•				
Ohio VAP			•			•		•				
NFESC												•
DASIP	•	•		•	•	•	•	•	•	•	•	•
NRC											•	
ISO17025							•	Δ				
ISO17025 - diox								•				
CNMI (diox)								•				
EPA Reg 5 (dw-diox)								•				
EPA Reg 8 (dw-diox)								•				

Δ We are certified to do this only for dioxin right now. We are getting audited for air DOD

• work right now ( this week) which would be AFCEE and US-ACOE

• We are certified only for dioxin, PCB congener, and air in Ohio.

Instrumentation																							
	Lab Area (ft²)	Microscopes	ICP	ICP/MS	Mercury Analyzer	Low Level Mercury Analyzer	Ion Chromatograph	Lachat Automated Analyzer	Discrete Analyzer	Gas Chromatograph	HPLC	GC/MS	IR Spectrophotometer	High Resolution MS	GFAA	LC/MS - Single Quad	Gas Phase FTIR	Gamma Spectrometer	Gas Flow Prop. Counter	Alpha Scint. Counter	Liquid Scint. Counter	Alpha Spectrometer	Total
Asheville	8,000	0	2	0	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Charlotte	12,000	0	0	0	0	0	0	0	0	9	0	8	0	0	0	0	0	0	0	0	0	0	17
Columbus	10,200	0	1	1	1	0	0	0	3	5	0	5	0	0	1	0	0	0	0	0	0	0	17
Florida	11,000	0	1	1	2	0	2	2	0	10	3	7	0	0	0	0	0	0	0	0	0	0	28
Green Bay	27,000	0	1	1	2	3	2	1	0	17	0	15	0	0	0	0	0	0	0	0	0	0	42
Indianapolis	17,600	0	2	0	1	0	0	1	0	11	0	9	0	0	0	0	0	0	0	0	0	0	24
Kansas City	17,500	0	2	0	1	0	2	1	1	7	0	9	0	0	0	0	0	0	0	0	0	0	23
MN Field Services Div		0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	6	0	0	0	0	0	9
Minneapolis	45,000	0	2	3	1	0	1	0	1	10	0	17	0	5	0	0	0	0	0	0	0	0	40
Montana	5,000	4	0	0	0	0	1	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	10
New Orleans	14,000	0	2	0	2	0	1	0	3	14	0	11	0	0	0	0	0	0	0	0	0	0	33
New York	15,000	0	2	0	1	0	0	0	0	19	0	5	0	0	1	0	0	0	0	0	0	0	28
Pittsburgh	18,000	0	2	0	1	0	1	1	1	6	0	7	1	0	0	0	0	1	3	2	1	1	28
Seattle	15,000	0	1	2	2	0	2	1	0	8	2	5	0	0	0	0	0	0	0	0	0	0	23
Total	200,300	4	15	8	14	3	12	9	10	101	5	90	2	5	1	0	6	1	3	2	1	1	330

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## 4. Systems

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### Web-based Report Access - PacePort

Pace Analytical has developed an Internet site called PacePort that allows clients of any Pace Analytical laboratory to view, download and print analytical reports and invoices. PacePort is a secured site, utilizing individual log-on ID's and passwords. Data is encrypted between the client's browser and the download site. Reports and invoices are posted on the site in Adobe® PDF format and remain available online for several years.

PacePort is a web-based data-management tool designed specifically for our customers. With up-to-the-hour data access from your computer, you have a quick resource to the information you need – when you need it.



- Quick, easy and secure access to your data – 24/7
- Confirm sample receipt and methods requested
- Check status of samples or projects at the lab
- Provide added value to your clients and projects
- Generate custom Electronic Data Deliverables (EDD)
- Order your containers online
- Improve your data/report management efficiency
- Put watches on critical projects to receive email notifications of results
- Select type of notifications that you want to receive
- Work on deadlines during non-business hours
- Archive all historical site/project data and reports
- Share data access with all interested stakeholders

PacePort can be accessed via the Pace Analytical Website: **[www.pacelabs.com](http://www.pacelabs.com)**. To begin using PacePort, clients must first register to obtain their user ID and password. A Pace Analytical project manager will assist the client in setup an account to access their reports on PacePort. For more information, please contact your Pace Analytical Project Manager.

### LIMS / Instrument Automation / EDDS

Pace Analytical has invested heavily in systems automation and electronic communications in order to enhance our turnaround time and service quality. These investments in technology were made because we believe that if we communicate to you more efficiently, you will spend less time and effort understanding and utilizing the analytical data that we provide. Our information systems support our Client Services, Accounting and Laboratory Operations. The entire network of Pace Analytical laboratories is integrated, allowing real-time sharing of information between our facilities and between the departments within those facilities.

### LIMS (*Laboratory Information Management Systems*)

Pace Analytical has implemented a LIMS, called EPIC Pro (Environmental Project and Information Control), which has been custom-designed for Pace Analytical and the specific needs of environmental laboratory operations. It is based on an Oracle relational database, giving the system the flexibility to adapt to many of your specific project and reporting requirements. From sample check-in to invoicing, EPIC Pro models the laboratory operations, eliminating redundant processes and data entry, and allowing for greater standardization in areas such as quality control batching, data reporting, and billing throughout the Pace

Analytical system. As well as having a common LIMS, the Pace Analytical laboratories are linked via a high-speed network, which allows for transparent information transfer.

### **LIMS General Capabilities:**

**Project Definition/Sample Pre-check-in:** This feature allows a Pace Analytical project manager to load into the LIMS most of the information that sample check-in will need at the time of sample receipt allowing for a faster log-in process.

**Sample Check-in:** All samples delivered to Pace Analytical's sample coordinator are entered into the LIMS and organized by project number. All relevant project information accompanying samples is entered into the system at sample check-in, unless the project was "pre-defined," such as client name, client number, project name, project description, sample matrix, analytical method, QC level, due date, etc.

**Scheduling:** Each day, Pace Analytical department managers check on-line or receive computer reports listing those projects which are still open within each analytical area. Based on these reports, managers set priorities and schedule work appropriately to meet the project needs.

**Project Management:** Pace Analytical has established a separate client services area to manage all project aspects. An important element of this function is to coordinate the compilation of data on projects involving analyses over multiple locations. Other important functions of this area are to maintain client liaison, expedite report delivery, help laboratory managers schedule work, etc. For large project commitments, Pace Analytical designates a specific Project or Program Manager. Project Managers find the LIMS to be an effective tool for achieving project schedules, budgets and objectives, and maintaining client satisfaction.

**Data Entry:** All data generated within each analytical area are entered or uploaded into the computer system according to project number. The data is not entered until all quality assurance/quality control checks have been made. Project management/client services staff routinely review outstanding projects to make sure appropriate progress is being made on the completion of required analyses.

**Data Reporting:** When all analyses have been completed and entered, a draft final report is generated from the LIMS. The draft final report is reviewed by all appropriate management staff whose analytical areas have been involved on that project. Upon review, any corrections are made before issuing a final report, which is sent out to the client. In addition to the hard copy, the report, or the report data, can be copied onto a CD, Adobe Acrobat format via e-mail, diskette, CD or download from the Internet.

**Management Information:** The LIMS also provides information concerning the numbers of samples analyzed, the number of specific analyses performed, holding time status, and other information is used by Pace Analytical management to track capacity, efficiency and productivity and, ultimately, the need to add capacity.

**Invoicing:** Automated invoicing is accomplished at the time of project initiation or by the input of pricing information during sample/project entry.

### **Instrument Upload**

Pace Analytical laboratories also utilize various forms generation software packages. These software packages allow for automated routing of instrument-generated data directly into processors that will develop complex data deliverable packages. This helps to provide a consistent deliverable package to our clients. Pace Analytical has also invested significant resources in automating the results upload process from our instruments directly into the LIMS system. This automatic upload eliminates the potential for transcription error and helps us meet shorter turn-around time requests from our clients.

Most of our laboratories have implemented Thermo's Target Software for Windows to automate our organic laboratories. Many laboratories also utilize Labtronics LIMSLINK software to automate the upload of results from metals instruments. These systems provide Pace Analytical staff with a significant reduction in data



processing time, and eliminate transcription and related errors. It also facilitates the productions of “CLP-like” forms and electronic data deliverables.

### **Electronic Communications**

**Email:** Pace Analytical's email system, installed in all our laboratories and our corporate office, allows us to communicate to our clients via the Internet. All Pace Analytical employees can be reached via the following protocol: [firstname.lastname@pacelabs.com](mailto:firstname.lastname@pacelabs.com).

**Electronic Delivery of Results:** Pace Analytical offers our clients the electronic delivery of results in a number of different ways. Electronic results are available from our Website through PacePort, on CD or via e-mail. PacePort allows clients to view, download and print analytical reports and invoices. The standard format for these files is Adobe® PDF; however, other formats such as ASCII-delimited, CSV, or Excel spreadsheets are available.

**EDI:** Pace Analytical currently is set up to allow our clients to pay our invoices in an electronic fashion, with electronic payments being accepted directly into our bank account. In addition, we have EDI communications with some clients.

**Novell Network Using VPN Technology:** Our Corporate IT staff maintains a Novell network that allows Pace Analytical to efficiently share information between all locations. This network supports our internal e-mail system, the Pace Analytical intranet, and allows for the sharing of analytical project information and financial information.

## 5. Quality

### Pace Analytical Certifications

State Program	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas	Minnesota	Montana	New Orleans	New York	Pittsburgh	Seattle
AK (dw)								•					•
AK (env)								•					•
AK (dw-micro)													•
AL (dw)				•									
AL (diox-dw)								•					
AL (rad-dw)												•	
AR (bioassay)							•						
AR (env)							•	•					
AR (dw)								•					
AR (diox-dw, hz, ww)								•					
AR (rad-dw)												•	
AZ (air)								•					
AZ (dw)				•									
AZ (diox-dw, hz, ww)								•					
AZ (rad-dw)												•	
CA (dw)													•
CA (ww)					•								•
CA (hz)					•								•
CA (diox-dw, hz, ww)								•					
CA (rad-dw)												•	
CO (asbestos)									•				
CO (dw)				•				•					
CO (diox-dw)								•					
CO (rad-dw)												•	
CT (dw)		•		•				•					
CT (hz, ww)	•	•		•				•			•	•	
CT (diox-dw, hz, ww)								•					
CT (rad)												•	
DE (dw)													
DE (rad-dw)												•	
FL (air)								•					
FL (dw)		•		•				•					•
FL (env)	•	•		•	•			•		•		•	•
FL (diox-air, dw, hz, ww)								•					
FL (rad-dw)												•	
FL (tissue)					•			•					
GA (dw)		•		•				•					
GA (env)		•		•	•			•					
GA (diox-dw, hz, ww)								•					
GA (rad-dw)												•	
Guam (dw)				•									
Guam (diox-dw)								•					
Guam (rad-dw)												•	
HI (dw)				•				•					
HI (diox-dw)								•					
HI (rad-dw)												•	
IA (dw)								•				•	
IA (env)							•	•					

[illegible]

State Program	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas	Minnesota	Montana	New Orleans	New York	Pittsburgh	Seattle
NC (dw)	•	•		•				•					
NC (ww)	•	•			•			•			•	•	
NC (hz)								•					
NC (diox-dw)								•					
NC (rad-dw)												•	
ND (dw)								•					
ND (ww)					•			•					
ND (hz)					•			•					
NE (dw)								•					
NE (diox-dw)								•					
NH (dw)				•									
NH (ww)												•	
NH (env)				•									
NH (hz)													
NH (rad-dw)												•	
NJ (air)								•					
NJ (dw)				•				•					
NJ (ww)	•	•		•				•				•	
NJ (hz)	•	•		•				•			•	•	
NJ (diox-dw, hz, ww)								•					
NJ (rad-dw)												•	
NM (dw)								•					
NM (diox-dw)								•					
NM (rad-dw)												•	
NV (dw)				•				•					
NV (ww)							•	•					
NV (hz)							•	•					
NV (diox-dw, ww)								•					
NV (rad-dw, hz, ww)												•	
NY (air)								•			•		
NY (dw)				•				•			•		
NY (env)					•						•	•	
NY (diox-air, dw, ww)								•					
NY (rad-dw, ww)												•	
OH (dw)			•					•					
OH (diox-dw)								•					
OH (VAP-hz, ww)			•			•		•					
OH (VAP-air)								•					
OR (air)								•					
OR (dw)								•					•
OR (ww)							•	•		•			•
OR (hz)							•	•		•			•
OR (diox-air, dw, hz, ww)								•					
OR (rad-dw)												•	
OK (micro)							•						
OK (bioassay)							•						
OK (env)							•	•					
OK (diox-dw)								•					
PA (dw)				•				•				•	
PA (hz)	•	•				•		•		•		•	
PA (ww)	•	•				•		•		•		•	
PA (diox-dw, hz, ww)								•					
PA (rad-dw, hz, ww)												•	
PR (dw)				•				•					

State Program	Asheville	Charlotte	Columbus	Florida	Green Bay	Indianapolis	Kansas	Minnesota	Montana	New Orleans	New York	Pittsburgh	Seattle
PR (rad-dw)								•				•	
PR (dw-diox)								•					
SC (dw)	•	•											
SC (hz)	•	•			•								
SC (ww)	•	•			•							•	
SC (diox-dw, hz, ww)								•					
SC (bioassay)	•												
SD (dw)													
SD (rad-dw)												•	
TN (dw)				•				•					
TN (diox-dw)								•					
TN (rad-dw)												•	
TX (air)								•					
TX (bioassay)							•						
TX (dw)				•				•					
TX (env)							•	•		•			
TX (diox-dw, hz, ww)								•					
TX (rad-dw)												•	
UT (bioassay)							•						
UT (dw)								•					
UT (env)							•	•				•	
UT (diox-dw, hz, ww)								•					
UT (rad-dw, hz, ww)												•	
VA (dw)	•	•		•				•					
VA (diox-dw)								•					
VA (rad-dw)												•	
VT													
WA (air)								•					
WA (dw)								•					•
WA (env)							•	•		•			•
WA (diox-dw, hz, ww)								•					
WA (rad-dw)												•	
WI (dw)					•			•					
WI (env)					•			•					
WI (diox-dw, hz, ww)								•					
WI (rad-dw)												•	
WV (air)								•					
WV (dw)													
WV (env)	•					•						•	
WV (diox-dw)								•					
WV (rad-hz, ww)												•	
WY (dw) (via EPA 8)							•	•					
WY (diox-dw) (via EPA8)							•						
WY (rad-dw)												•	
US VI (dw)													
US VI (rad-dw)												•	
Saipan (diox-dw)								•					
ISO 17025 (asbestos)								•					
ISO 17025 (dioxin)								•					
ISO 17025 (dw)								•					
ISO 17025 (env)								•					
ISO 17025 (air)								•					

## **NELAP Accreditation**

All Pace Analytical full-service laboratories are accredited National Environmental Laboratory Accreditation Program (NELAP). NELAP is the EPA program that administers the National Environmental Laboratory Accreditation Conference (NELAC) process. A major NELAC goal is to assure that laboratories provide analytical data at a high level of quality, providing the basis for sound decision-making.

NELAP Accreditation provides additional assurance to Pace Analytical clients that their laboratory supplier has met significant National Quality Systems standards.

## **Quality Assurance Program**

The following sections describe the Quality Programs in place at Pace Analytical.

### **Quality Philosophy**

The philosophy that has been cultivated at Pace Analytical is that of total quality. We understand that quality data is top priority, yet we also know that quality data that is not efficiently communicated in a timely manner is of diminished value to the client. Therefore, Pace Analytical has dedicated the resources at the corporate and laboratory levels.

Quality Control consists of specific procedures applied to all phases of analysis from sample receipt through the final reporting of results. The purpose of quality control is to ensure that quality goals are met under routine operating procedures. Quality Assurance involves the continuous evaluation of data and monitoring of analytical processes for the purpose of ensuring that the quality control systems are performing effectively.

### **Organizing**

The Quality Office in the laboratory is independent from operations and reports directly to the Laboratory General Manager. This reporting hierarchy allows autonomous quality assurance activities within the laboratory system. Pace Analytical also has a corporate Quality Office to ensure consistent quality throughout our laboratory system.

### **Program Objectives**

The major elements of the Laboratory Quality Assurance/Quality Control Program are summarized below. A complete copy of our Quality Assurance Manual is available upon request.

- Use of appropriate methodologies by technically competent, well-trained personnel with modern instrumentation and equipment.
- Adherence to well-defined standard operating procedures with emphasis on good laboratory and measurement practices.
- Analysis and assessment of quality control samples including (but not limited to) matrix spike samples, duplicate samples, surrogate spikes, blanks, and independent laboratory control standards.
- Participation in external quality evaluation programs including EPA Water Pollution and Water Supply (WP & WS) Study Programs, CLP, Air Force, Navy, and numerous state programs.
- Maintenance of accreditation by State, Federal, and other applicable agencies for work performed.

- Monitor internal and external compliance to procedures and to assess the performance of the analytical methods.

## Quality Control Deliverables

Although the fundamentals of the laboratory quality control program are applied consistently, Pace Analytical offers several different levels of quality control deliverables. This is designed so that you may meet various quality reporting objectives.

### Level Description:

- I. Data Reporting Only
- II. Preparation Batch Quality Control (QC) Data: blank results, spike recoveries (including matrix spikes), duplicate precision (including matrix spike duplicates) and reference material results (where applicable). A case narrative is provided as necessary and/or on request
- III. All items in Levels A and B, and the raw data sheets and chromatograms
- IV. The Contract Laboratory Program (CLP) package as defined in the U.S. EPA contract deliverables package

## Quality Assurance Plan

Pace Analytical has developed a Quality Assurance Plan (QAP) which is in compliance with the elements required in the US EPA "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations," EPA QA/R-5. This company QAP is then customized by our individual laboratory locations, as is necessary, to reflect their specific location requirements, processes, and capabilities. The QAP defines the systems of quality control and quality assessment that constitute the comprehensive Quality Assurance Programs within Pace Analytical. Each laboratory follows, at a minimum, the requirements outlined in the QAP. In many instances, as a result of specific program requirements, the laboratories adhere to more rigorous standards than those outlined in the QAP.



## 6. Rapid Response



**WHEN ENVIRONMENTAL DISASTER STRIKES...**  
**The PACE RAPID RESPONSE TEAM (PRRT) is there to help.**



When disaster strikes – be it a major fire, a train derailment, an oil spill or a pipeline rupture – and materials of environmental concern are released to the environment, Pace Analytical's Rapid Response Team is available to discuss urgent environmental options and implement a testing solution. PRRT responders are available 24-7 to ensure that sample containers are available, samples are collected appropriately, critical samples are expedited to the nearest laboratory, and rapid results are provided to decision makers on the scene. This level of lab support is crucial in making decisions that impact the safety of emergency personnel on site and the potential exposure of local residents to hazardous chemicals.

**The PRRT can provide the following services and a flexible response to unique site challenges:**

- A national network of laboratories and responders
- Expedited shipment or courier of sample supplies to the scene
- On-site technical support and sample logistics
- Rapid laboratory results to support tactical decisions
- Automated, on-line, easy to use data management tools
- Quality data at all times to ensure defensibility should legal challenges arise

**The PRRT has extensive experience in a wide range of environmental disaster assistance including:**

- Derailments
- Fires
- Pipeline breaks
- Industrial chemical spills or leaks
- Floods and other natural disasters (*\*Pace Analytical can provide references for these types of work upon request.*)

**RAPID RESPONSE**



**PACE RAPID RESPONSE TEAM:**  
**PH: (877) 859-7778**  
**Email: [rapidresponse@pacelabs.com](mailto:rapidresponse@pacelabs.com)**



**Pace Analytical Services, Inc.**  
**Corporate Office**  
 1700 Elm Street  
 Minneapolis, MN 55414  
 (612) 607-1700  
[www.pacelabs.com](http://www.pacelabs.com)





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## 7. Personnel

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### Pace Analytical Senior Management Personnel

#### Corporate Officers and Senior Management

Our corporate office is located in Minneapolis, MN. The primary function of the corporate officers and senior management is to provide assistance to the independently managed division and locations. They have the strength, experience and business insights to make Pace Analytical succeed and grow.



**Steve Vanderboom**  
**PRESIDENT AND CHIEF EXECUTIVE OFFICER**

Steve Vanderboom possesses over 30 years of experience in the analytical services industry, specifically in the areas of environmental testing, pharmaceutical and medical device testing, product testing, field services and environmental consulting. Mr. Vanderboom founded Pace in 1978 and has served as its President and CEO since that time. Pace Analytical Services, Inc. is a privately held national company offering analytical services and measurements and employs over 1,000 people in 15 locations around the United States and Puerto Rico. Mr. Vanderboom received a Master's in Environmental Engineering from the University of Minnesota and a Bachelor's in Civil Engineering from South Dakota School of Mines and Technology. Steve lives in the Minneapolis, MN area and is an active participant in his church, community and professional organizations including the American Council of Independent Laboratories and the World President's Organization.



**Michael R. Prasch**  
**CHIEF FINANCIAL OFFICER**

Mr. Prasch joined Pace Analytical in 1999, and has over 18 years of experience in corporate finance. He currently serves as Chief Financial Officer and is responsible for all financial, Human Resource and administrative activities. He is also responsible for managing Pace's corporate information technology team. He received his B.S. in Accounting from the University of Minnesota and an MBA in finance from Minnesota State University.



**Jack Dullaghan**  
**CHIEF OPERATING OFFICER - ENVIRONMENTAL**

Mr. Dullaghan possesses over 28 years of experience in the analytical services industry. He joined Pace Analytical in 1997 and currently serves as COO. Mr. Dullaghan is responsible for leading and managing the laboratories and their staffs. He has received a MBA, M.A. in Biochemistry, and a B.S. in Chemistry.



**Gabe LeBrun**

**VICE PRESIDENT AND CHIEF OPERATING OFFICER – LABOPS**

Mr. LeBrun has over 24 years of experience in the analytical services industry. He joined Pace Analytical in 1990 and over his tenure with the company has managed and directed several Environmental and non-environmental businesses and started the non-environmental business that Pace currently operates today. He is currently responsible for the LabOps division which specializes in on-site Professional Services, instrument Maintenance, Repair and Qualification services, Metrology and Regulatory Data Management. He received a B.S. in Chemistry and Biology from the University of Wisconsin – Eau Claire.



**Gregory D. Kupp**

**CHIEF OPERATING OFFICER – LIFE SCIENCES**

Mr. Kupp joined Pace Analytical Life Sciences in 2006 and currently serves as COO of Pace Analytical Life Sciences, LLC. His current responsibilities include the management and oversight of operations within the Oakdale, Minnesota and San German, Puerto Rico Laboratories. He has over 17 years experience in pharmaceutical/medical device outsourcing and holds an M.S. degree in Quality Assurance/Regulatory Affairs from Temple University.



**Greg Whitman**

**VICE PRESIDENT OF SALES AND MARKETING – ENVIRONMENTAL & LABOPS**

Mr. Whitman joined Pace Analytical in 1995 and has over 15 years of industry experience. As Vice President of Sales and Marketing, Mr. Whitman directs the company's sales organization to achieve the corporate revenue goals and assists lab operations in positioning for new market opportunities and business growth. Mr. Whitman has a B.S. in Business Administration.



**Bruce Warden**

**DIRECTOR OF TRAINING, SAFETY AND ENVIRONMENT**

Mr. Warden has more than 30 years of experience in the analytical services industry. He joined Pace Analytical in 1997 and over his tenure with the company has served in various senior management roles. He is currently responsible for the direction of the corporate safety and environment program, and the ongoing direction and development of the corporate training program. He received a B.A. with a major in Chemistry from California Lutheran College and an M.S. in Analytical Chemistry from Oregon State University.



**Richard Henson**

**DIRECTOR OF QUALITY ASSURANCE – ENVIRONMENTAL**

Mr. Henson recently joined Pace Analytical. Rich has more than 25 years of experience at all levels of management and responsibility in environmental, analytical and industrial laboratories. He is presently responsible for the direction of Pace's Corporate Environmental Quality Assurance Program. He received a B.S. in chemistry from the University of California.



**Cynthia Hansen**

**DIRECTOR OF QUALITY ASSURANCE – LIFE SCIENCES**

Ms. Hansen joined Pace Analytical Life Sciences in 2006 and currently serves as the Director of Quality. Her current responsibilities include directing the activities of the Quality Assurance, IT, Sample Administration and Facilities staff as well as oversight of the San German QA activities. She has more than 18 years of experience in analytical chemistry laboratories, including 12 years in the FDA regulated industry. Cynthia holds an M.S. degree in Environmental Engineering and a B.S. degree in Chemistry.



**Diane Dumer**

**DIRECTOR OF INFORMATION TECHNOLOGY**

Ms. Dumer joined Pace Analytical in 2004. She has over 18 years of experience in the information technology industry. She currently serves as Director of Information Technology and is responsible for directing the activities of the information serviced team and the technologies supporting the entire company. She has received a B.A. in Quantitative Methods with Math minor from the College of St. Catherine in 1985.



**LoAnn Grill**

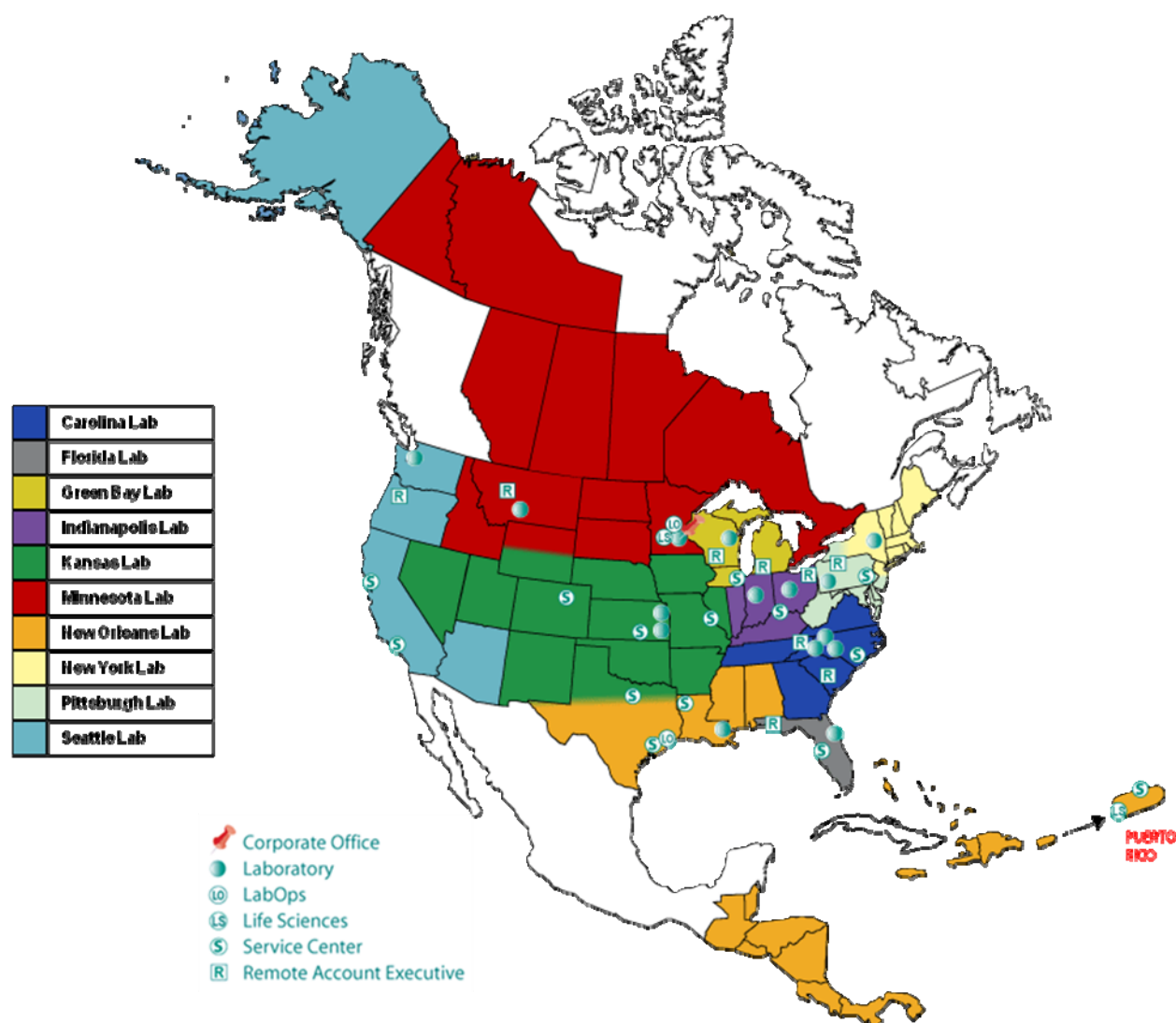
**DIRECTOR OF HUMAN RESOURCES**

Ms. Grill possesses 31 years of human resources experience. She joined Pace Analytical when it was formed in 1995 and currently serves as Director of Human Resources. As Director of Human Resources, Ms. Grill is responsible for administering human resources policies, programs and practices – including planning, organizing, developing, implementing, coordinating, and directing all phases of personnel activity.

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## 8. Sales Team

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### Pace Sales Team

Our nationwide sales team consists of dedicated professionals who are responsive to the business needs of our clients for high quality, cost-effective analytical services. And what differentiates us from others is the level of personalized service and quality of care we offer our customers. We are committed to building long-term relationships with our clients. Total client satisfaction is rooted in the fabric of our corporate goals and business objectives.

### Pace Technical Network

With laboratories and service centers around the country and certifications that cover all jurisdictions, Pace Analytical has made it convenient to access the services you need – *when you need them* and *where you need them*. Our sales staff can assist you regarding services, lab locations and turn-around times for your specific projects. The **Pace Technical Network** help desk can also assist you with any specialty analytical testing questions you might have. Please feel free to call this number: 1-877-722-3832.

## **APPENDIX C**

### SESCO Quality Management Plan



Environmental Investigation & Remediation

## QUALITY MANAGEMENT PLAN

*New SESCO, Inc.*

**SESCO Group**

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Indianapolis, IN 46208

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Revision: 1.3

Date: August 9, 2013

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**ACCEPTANCE AND APPROVAL**

New SESCO, Inc.  
(SESCO Group)  
1426 West 29<sup>th</sup> Street  
Indianapolis, IN 46208

  
Chad Pigg; President & CEO

08-09-13

Date

  
Brent Graves; Chief Operating Officer

8/9/13

Date



## **NOTICE OF OWNERSHIP AND CONDITIONS OF USE**

The Quality Management Plan reflects the commitment of New SESCO, Inc. (dba SESCO Group) to quality management principles and practices. This document is the property of SESCO Group and will be updated periodically as new concepts and practices are developed. Such revisions shall be effected by issuing new or revised sections to ensure uniform practices. Deviations to the enclosed information may be authorized, when appropriate, based upon warranted circumstances.

## **PURPOSE AND SCOPE**

**Purpose:** This Quality Management Plan (QMP) identifies and describes the elements of a Quality Assurance/Quality Control (QA/QC) program integral to environmental cleanup activities. Individual Quality Assurance Project Plans (QAPPs) are prepared to cover the specifics of a given project. Each QAPP references the applicable sections of the QMP, and includes field-specific quality requirements for the individual tasks. This QMP is written as a management plan, and discusses quality requirements for environmental programs in a general perspective as specifically related to the scope of environmental remediation work.

This QMP also addresses quality requirements from a program/project management perspective, providing managers with QA/QC requirements needed to plan, implement, and assess environmental programs. It forms a set of fundamental requirements commensurate with the scope, nature, and complexity of environmental activities. Environmental activities covered by this QMP include environmental studies, feasibility studies, remedial investigations, records of decision, project planning, remedial design, remediation testing, remedial/removal actions, and site cleanup verification activities.



## MANAGEMENT AND ORGANIZATION

Purpose: To document the overall policy, scope, applicability, and management responsibilities of SESCO Group's quality system.

SESCO Group believes that a strong QMP is vital to the success of any project. Existing and anticipated environmental decision-making objectives requires that a systematic process and structure be established for performed work activities that are consistent with established regulatory procedures or accepted practices, which results in data consistency and quality that decision makers must have if they are to have confidence in the data which supports their decisions.

SESCO Group maintains a QMP that provides a detailed description of QA/QC procedures for its work activities. These procedures address all aspects of our work that can potentially affect data quality and interpretation - including various field activities and procedures, sample collection and handling, calibration of instruments, decontamination procedures, record keeping, and statistical analysis of data and reporting.

SESCO Group follows Standard Operating Procedures (SOPs) in accordance with methods or procedures established by the United States Environmental Protection Agency, American Society of Testing and Materials, Indiana Department of Environmental Management, as well as accepted industry standards. Quality control procedures are documented and follow regulatory and/or accepted protocols. As a result of the quality of work and the data generated from those activities, SESCO Group is able to provide technically sound evaluations, interpretations, and project strategies of initial investigations through closure of complex projects.

The primary objective of the QMP is to ensure that all of the work activities performed, data generated, and data reported are scientifically valid and legally defensible.

All of the operations performed by SESCO Group meet the following criteria:

- Methods and procedures follow the specifications and requirements of the appropriate regulatory agencies (USEPA/ASTM/IDEM) or accepted industry standards.
- SOPs have been developed and are followed to ensure that the highest quality data is generated.
- All final reports are reviewed in order to meet our client's objectives and expectations with respect to quality and completeness.

The content of the QMP is reviewed and revised on an annual basis.

The Quality Program Manager is responsible for all operations under this contract. The Quality Program Manager reports directly to SESCO Group senior management. Specific project and task authorities are listed below:

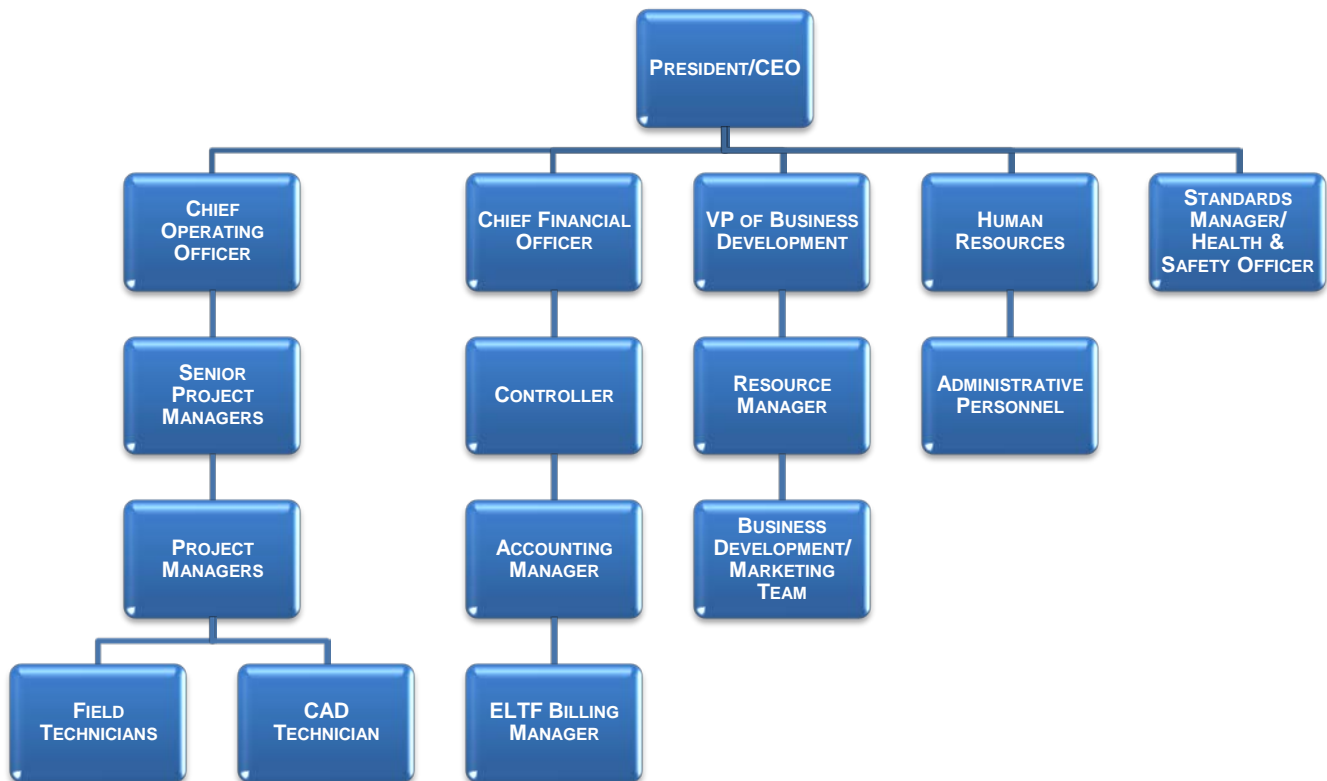
- Field documentation is generated by Field Personnel
- Field documentation is reviewed by the Project Manager
- Laboratory data, once completed, is reviewed by the Project Manager
- SESCO Group personnel generate Tables and Figures
- Tables and Figures are reviewed by the Project Manager



- Draft report of field activities and results (investigation report) is generated by the Project Manager
- First review of draft report is reviewed by the Senior Project Manager
- Second review of draft report is reviewed by SESCO Group Employee (Project Manager status) not associated with the project (Independent Review)
- All geological and engineering data is reviewed by Professionally Licensed Individuals (Project Manager status or higher)
- Chief Operating Officer (COO) performs Independent Review of draft report as necessary
- Edits are discussed by Project Team
- Disputes are resolved within Project team or based on direction of COO
- Edits are made to draft report by Project Staff
- Edits are reviewed for completion by someone other than the Editor
- Report review documentation is kept in file with Final Copy of report



## ORGANIZATIONAL CHART



## QUALITY SYSTEM COMPONENTS

**Purpose:** To document how SESCO Group manages its quality system and defines the primary responsibilities for managing and implementing each component of the system.

### Quality System Documentation

Quality system documentation consists of accurate client information stored in a confidential project folder. Data integrity is maintained for each project in Ajera© and MS Project©. Each legally defensible arrangement is in the form of contractual documentation that is stored in a confidential project folder. SESCO Group uses a single point of data entry to define accurate relations with the client and reduce duplicate information. To ensure external quality is met, the minimum qualifications of quality are met by subcontractors used by SESCO Group at all times.

### Annual Reviews and Planning

Annual reviews and planning qualifications are met throughout the lifecycle of active projects. There is ongoing oversight, direction, and review from Project Manager, Senior Project Manager, COO, and the Health & Safety Officer at SESCO Group.

### Management Assessments

Management assessment are met through collaborative analysis and the MTAs (Multidisciplinary Team Analysis) conducted by the Project Manager, Senior Project Manager, COO, and the Health & Safety Officer. This occurs at, is not limited to, key milestones throughout the project lifecycle.

### Training

Training requirements are met through a number of quality components. Personnel performing work shall be trained and qualified based on job classification and project-specific requirements prior to the start of work as needed. The need to require formal qualification or certification of personnel performing certain specialized activities shall be evaluated and implemented where necessary. Appropriate technical and management training, which may include, but is not limited to classroom and on-the-job, shall be performed and documented. When job requirements change, the need for retraining to ensure continued satisfactory job proficiency shall be evaluated. Objective evidence of personnel job qualification shall be documented and maintained for the duration of the project or activity affected, or longer if required by statute or organization policy. Documentation of training activities shall be coordinated with and maintained by the Health & Safety Officer, as well as Senior Management.

### Systematic Planning of Projects

Systematic planning of project qualifications are met by the Project Manager, when he/she performs a detailed planning analysis of the Scope of Work (SOW), while the Senior Project Manager provides continual oversight of the analysis and lower level staff. The outflow produced is captured securely in MS Project and is kept in the secure project file folder.

### Project Specific Quality Documentation and Data Assessments

Project-specific quality documentation is secured by SESCO Group's records retention policy and kept in discrete and confidential project folders throughout the lifecycle of the project. Project and data assessment qualifications are met by continual oversight of the Senior Project Manager and COO.



### Quality System Tools

The list of the tools for implementing each component of the quality system include, but are not limited to the Company-wide QMP, the Project Specific QMP (as needed), and Quality Systems Audits, which are supervised by the ongoing review process of the Project Manager, Senior Project Manager, and Chief Operating Officer. Training Plans are required by all SESCO Group staff on an as-needed basis in the Technical, Operations, and Health& Safety fields, and maintaining appropriate licenses (CHMM, LPG, PE) is required.

The QAPP (project-specific quality documentation) maintains all work performed is consistent with IDEM guidance, standards, policies, and procedures. Data verification and validation (data assessments) are contained in SESCO Group's QA/QC process, which includes the SOW and specific data review to ensure that the proper analyses are performed, anomalies in data are flagged, and required laboratory documentation is completed.



## PERSONNEL QUALIFICATION AND TRAINING

Purpose: To document the procedures and processes used by SESCO Group.

### Quality Policy Statement

The Purpose of this chapter is to explain the processes used by SESCO Group to ensure that staff and managers working in environmental programs are trained and qualified to perform their required quality assurance responsibilities. This includes Field Staff, Technical Staff, Project Managers, Senior Project Managers, and the individuals who supervise these personnel.

### Qualifications and Responsibilities

Responsibilities of SESCO Group management include, but are not limited to, ensuring that technical staff involved with collecting, analyzing, or managing environmental data have the necessary technical, quality assurance, and project management training required for their assigned tasks and responsibilities. Management is also responsible for ensuring that the technical staff maintain the necessary level of proficiency to effectively meet QA/QC responsibilities. The Standards Manager will serve as the company's resource for arranging for, assisting in, and defining QA/QC training needs on a regular basis to update technical staff with developing QA/QC issues.

### Identification of Training Needs

The identification of training needs is met in the core training (SOPs) and will be coordinated through the SESCO Group Standards Manager in conjunction with management. Additional training of technical staff will be arranged when there is an identifiable need. The Standards Manager, in conjunction with management, will identify continuing professional training requirements and address those requirements utilizing internal and external resources for the latest technological advances and evolution in regulatory and industry standards.

### Implementation and Documentation of Training

The implementation of training requirements at SESCO Group is conducted by technical and operational staff. Every employee is encouraged by management to rely and draw upon their educational background, experience, technical training, and on-the-job training to enhance their understanding and performance of QA related procedures.

The Standards Manager will develop and implement SOPs and/or internal training suited to meet the needs of technical staff with QA responsibilities:

- An orientation to Quality Assurance Management
- Establishing company and project-specific Data Quality Objectives
- Preparing QAPPs (as required)
- How to Perform Preliminary Data Review

The goal is to provide QA training to the SESCO Group technical staff that is responsible for QA functions. The Standards Manager may schedule impromptu QA training designed to address specific QA needs of the technical staff. The Standards Manager will maintain documentation and a record of all quality training completed by SESCO Group technical staff responsible for environmental data generation and evaluation. Management will provide resources for QA training for technical staff. This training will be provided, through internal training and/or external training, to staff at all levels to ensure that QA requirements and responsibilities are understood and implemented at all stages of projects.





## PROCUREMENT OF ITEMS AND SERVICES

Purpose: To document SESCO Group's procedures for purchasing items and services that directly affect the quality of environmental programs.

The procurement of purchased items and services that directly affect the quality of environmental projects shall be planned and controlled to ensure that the quality of the items and services is known and documented, and meets the technical requirements and acceptance criteria of the customer.

### Procurement Documentation

Procurement documents shall contain information clearly describing the item or service needed and the associated technical and quality requirements. The procurement documents shall specify the quality requirements and how those elements will be verified. Procurement documents including Scopes of Work (SOWs) and subcontractor bid documents shall be reviewed for accuracy and completeness by qualified personnel prior to release or award as appropriate. Changes to procurement documents shall receive the level of review and approval as appropriate to the change. Appropriate measures shall be established to ensure that the procured items and services satisfy all stated requirements and specifications.

### Review and Approval

Reviewing and Approving procurement documents are accomplished once the need is recognized that an item or professional service is required on the project. The project team consisting of the Project Manager, Senior Project Manager, and COO, will convene in a meeting to discuss the needs of the project.

### Procurement Tools

A Bid Specification Package will be developed by the project team to secure cost estimates for the needed items or service. The package will consist of the following:

- A detailed description of the SOW, type of project, and services needed from the subcontractor
- Figures depicting the Site location, layout and Site improvements
- Site photographs will be included when available and/or necessary

The Bid Specification Package will be reviewed by all project team members. Once revisions to the bid package are complete, the package will be emailed individually to qualified subcontractors with whom SESCO Group has an established relationship. In the event a subcontractor poses a question, which has not been covered in the bid package, an email will be sent to all subcontractors to clarify so that all companies have access to the same information.

### Quality Assurance of Items and Services

Procured items and services are of applicable quality, including the review of objective evidence of quality for applicable items and services furnished by suppliers and subcontractors, source selection, source inspections, supplier audits, and examination of deliverables. Repeat business, past performance, prior knowledge of performance standards, work ability, and past experience with other contracted businesses help SESCO Group ensure sustained quality when procuring items and services. Site audits, supplier audits, and sub-contractor audits are also conducted to ensure quality standards are met. All procured items and services meet the minimum standard of quality at SESCO Group.



## DOCUMENTS AND RECORDS

Purpose: To document appropriate controls for quality-related documents and records determined to be important to SESCO Group's mission.

Procedures shall be established, controlled, and maintained for preparing, reviewing, approving, revising, indexing, filing, storing, maintaining, retrieving, and final transmittal of pertinent quality documentation and records.

### Identification

Documents requiring control shall be identified. Documents, including revisions, shall be reviewed by qualified personnel for conformance with technical requirements and quality system requirements and approved for release by authorized personnel. Documents used to perform work shall be kept current. Obsolete or superseded documents shall be discarded or identified as obsolete or superseded and measures shall be taken to prevent their use.

### Maintenance

Sufficient records shall be specified, prepared, reviewed, authenticated and maintained to reflect the achievement of the required quality. The maintenance of records shall include provisions for retention, protection, preservation, traceability, and retrievability.

### Retention

Retention times for records shall be determined based on contractual and statutory requirements or as specified by management. Records shall be protected from damage, loss, and deterioration. Ensuring that records and documents accurately reflect completed work is achieved by daily backup on SESCO Group's external server. Maintaining documents and records including transmittal, distribution, retention (including retention times), access, preservation (including protection from damage, loss, and deterioration), traceability, retrieval, removal of obsolete documentation, and disposition is also achieved by daily backup on an external server. All technical documents and records are in compliance with all applicable statutory, regulatory, and EPA requirements for documents and records.

### Documents Requiring Control

The quality-related documents and records (both printed and electronic) requiring control include, but are not limited to technical related documents, invoices, and correspondence, which are controlled in a secure project file and continuously managed by the Project Manager, Senior Project Manager, and the COO throughout the project lifecycle.

### Records Retention Policy Statement

SESCO Group's policy regarding the retention and disposal of paper and electronic company documents/records establishes and implements appropriate chain of custody and confidentiality procedures for evidentiary records. Company records shall be maintained for a minimum of 10 years from preparation. All hard copy and electronic draft documents will be destroyed after they have been finalized.

### Report Review Process

#### Field Documentation

- Generated by Field Personnel
- Reviewed by Project Manager



#### Laboratory Data

- Generated and completed by Scientists
- Reviewed by Project Manager

#### Tables and Figures

- Generated by SESCO Group Personnel
- Reviewed by Project Manager
- Investigation Report Draft
- Draft of field activities and results generated by Project Manager
- First Draft reviewed by Senior Project Manager
- Independent Review by SESCO Group Employee
- COO performs independent review (*if necessary*)

#### Edits

- Edits are discussed by Project Team
- Edits are made to the draft report
- Edits are reviewed for completion by independent SESCO Group Employee
- Disputes are resolved within Project Team, based on direction of the COO

#### Technical Data

- Geological data reviewed by Licensed Professional Geologist (LPG)
- Engineering data reviewed by Licensed Professional Engineer (LPE)

#### Final Report

- Final Report Completion
- Final Report Submittal
- Report review documentation is kept in secure project file
- Copy of final report kept in secure project file
- All draft versions shredded



## COMPUTER HARDWARE AND SOFTWARE

Purpose: To document how SESCO Group will ensure that computer hardware and software quality requirements.

### Identification

The Technical, Accounting, and Administrative Staff at SESCO Group establish computer system hardware and software standards as a team. Senior management approves all hardware and software acquisitions. Minimum standards for hardware and software compatibility requirements are presented in this QMP. Hardware includes network servers and disk drives, electrical components, personal computers, and printers. Computer programs are synonymous with software. Computer programs addressed by this QMP include, but are not limited to, design, design analysis, models of environmental processes and conditions, operations or process control, and databases. Computer programs not addressed by this QMP include, but are not limited to, nontechnical software such as word processing applications.

### Maintenance

Planning, developing, implementing, installing, testing and documenting of computer hardware and software is maintained through a secure remote agent combined with on-site support provided by Indy IT Professionals. There is a constant monitor to ensure that needed server, systems and applications are functional at all times. In the event of failure, redundancies are in place to prevent fallout and IT staff is notified immediately. Network access is strictly controlled through WSA2/TKIP wireless access, and a Microsoft Windows Server domain controller. External protection is provided by Sonicwall Firewall with port control, content and packet filtering. Hardware and software are monitored at all times to ensure latest functional and security patches are installed in a timely manner. Managed anti-virus through Kaspersky is monitored 24 hours a day by Indy IT Professionals.

### Records

The QA records generated through implementation of the requirements of this section of the QMP include records documenting acceptance of computer hardware and software, inventories of computer-related hardware and equipment and verifications of internally developed computer programs. Computer software covered by this requirement includes, but is not limited to, design, data handling, data analysis, modeling of environmental processes and conditions, operations, or process control of environmental technology system (including automated data acquisition and laboratory instrumentation), data bases containing environmental data.

### Desktop and Notebook Units

The minimum desk top system purchased by SESCO Group should be configured—at a minimum—as follows: 2 GB RAM, 60 GB hard disk, Windows 7 Professional, 10/100/1000 network card, DVD-ROM, 17" or larger monitor. Systems purchased should be in the Dell product family. Exceptions must be approved by the COO or CEO.

### Laptop Units

The minimum laptop (notebook) configuration purchased by any SESCO Group associate or program should be configured—at a minimum-- as follows: 2 GB RAM, 60 GB hard disk, Windows 7 Professional, 10/100/1000 network card, DVD-ROM, 17" or larger monitor. Systems purchased should be in the Dell product family. Exceptions must be approved by the COO or CEO.



### Printer Standards

Any printer purchased within SESCO Group must be in the Hewlett-Packard product family or closely compatible.

### Software Installations

Most software installations are generally without installation and configuration problems. However, instances do occur where software is installed that impacts the working capability of the computer because of inappropriate installation configuration or conflicts with software already installed on the computer. In addition, there are standards and licensing issues that SESCO Group is responsible for meeting. Therefore, it is suggested that any software installations, at the very least, be approved through the COO or CEO before installation, and usually be installed by Computer Support (IndyIT/Technical Staff).

### Software Development Standards: Selection of Database Platform

If the application will involve five or fewer persons within a work group, the data should be stored in a Microsoft Access database. If the database will reside on a file server, then the database installation must be coordinated with the Indy IT Professionals staff. If the application is to be used by more than five (5) persons, then that application should be stored in a SQL Server instance or Filemaker server database. (Exceptions: Computer systems that have existed prior to July 1, 1998 will be permitted to continue using database platforms currently supported. Any substantial rewrites or redefinitions of database functionality should support either SQL or Filemaker as previously indicated.)

Client applications are any applications that permit new data entry or modification of data that are stored in databases. Client applications should be written using one of the following tools: PHP, ASP, Filemaker, MS Access or MS Visual Studio. Exceptions to these development environments may be made depending on the requirements of the application. Contact the COO for approval prior to deviating from an approved development tool. All software development accessing the SESCO Group database must be certified and approved by the COO. (Exceptions: Client applications that support commercial software and are not developed expressly for a program or work group and software mandated for use by some external agency such as US EPA is exempted from the requirements stated above. In the event of a substantial rewrite of a system application, the client software should be written using one of the approved programming tools.)

### Contract Software

Software that is contracted for development should support one of the approved databases and the contract must be approved and certified by the COO or CEO. Client software should be written using one of the approved tools, and where possible, the software should be purchased with rights to the programming code.

### Web Pages and Web-based Data Access

The Administrative Coordinator for Internet and Intranet Services supports efforts to provide information including database access via the web. The Administrative Coordinator and upper levels of Management must be consulted with respect to any significant web-based development efforts.

### Web Browser Software

All associates are required to run Microsoft Internet Explorer as the web browser software.



## PLANNING

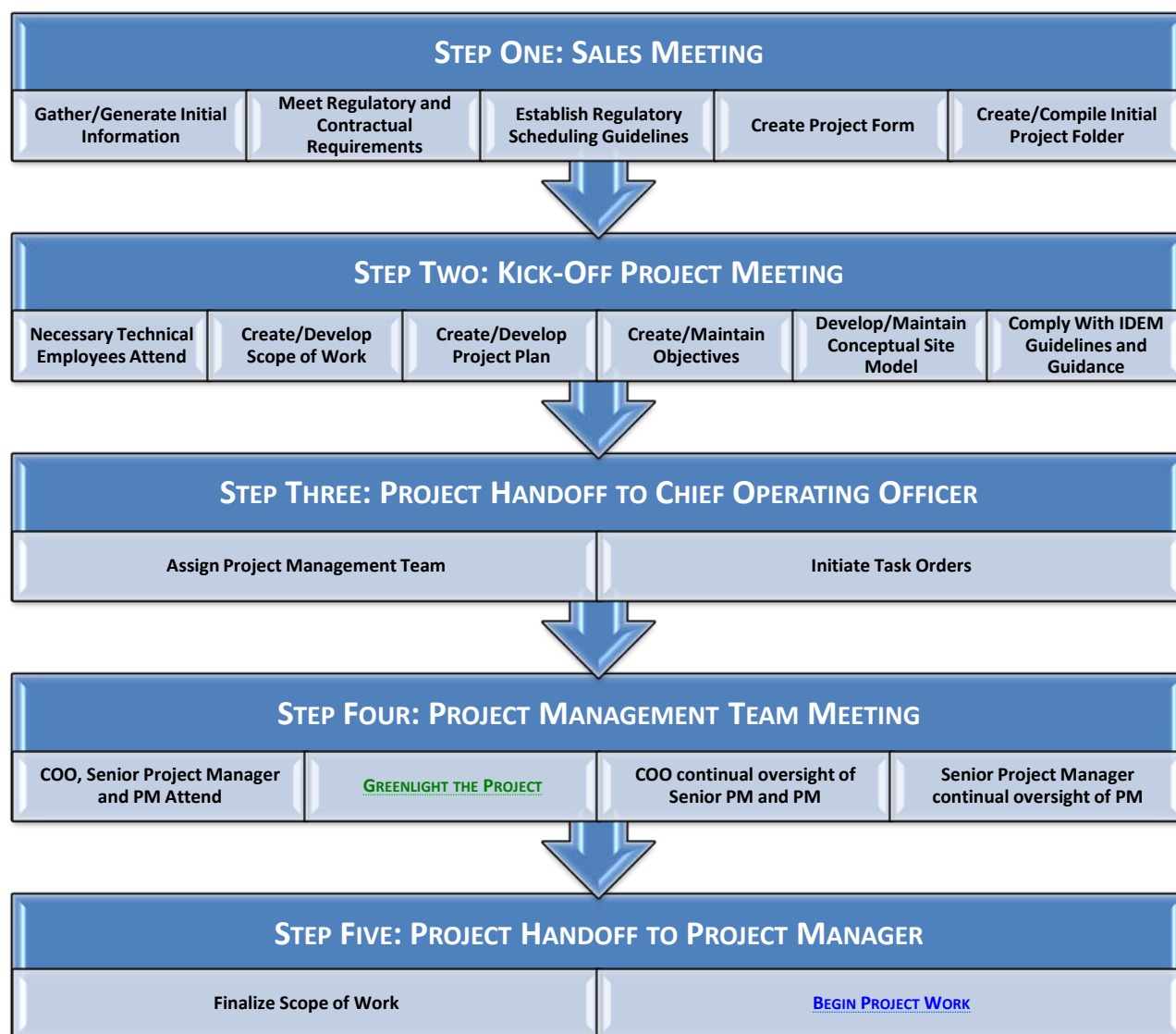
Purpose: To document how individual data operations will be planned within SESCO Group to ensure that data or information collected are of the needed and expected quality for their desired use.

### Planning Objectives

A systematic planning process shall be established, implemented, controlled, and documented as necessary to accomplish the following:

- Identify the customer and their needs and expectations for the results of the work to be performed
- Identify the technical and quality goals that meet the needs and expectations of the customer
- Translate the technical and quality goals into requirement documents (e.g., specifications, work plans) that will produce the desired result

### Process Model



### Documentation

All planning documentation shall be reviewed and approved for implementation by authorized personnel before the specific work begins. SESCO Group plans environmental data operations using a systematic planning process which includes: The identification and involvement of the Project Manager, sponsoring organization and responsible official, project personnel, stakeholders, scientific experts, etc.

### Scope of Work

The Project Manager puts together the SOW including the identification of project schedule, resources, budget, milestones, and any applicable regulatory/contractual requirements. The Work Plan and SOW includes a description of the project goal, objectives, questions, and issues, a description of how, when, and where the data will be obtained (including existing data) and identification of any constraints on data collection. This also includes a description of how the acquired data will be analyzed (either in the field or the laboratory), evaluated (i.e., QA review, verification, validation), and assessed against its intended use and the quality performance criteria.

### Data Identification and Specification

The identification of the type and quantity of data needed and how the data will be used to support the project's objectives is included in the site model and SOW. The specification of performance criteria for measuring quality is exemplified in documents and criteria that meet minimum level quality standards along with following IDEM Guidance Documents. The specification of needed QA and QC activities to assess the quality performance criteria (e.g., QC samples for the field and laboratory, audits, technical assessments, performance evaluations, etc.) is exemplified with IDEM Guidance in accordance with minimum standards of quality. Stakeholder input is used as a tool to ensure the quality of data.

### Data Quality Objectives

SESCO Group's process of evaluating and qualifying data collected for other purposes or from other sources, including the application of any statistical methods, for a new use meets minimum levels of quality standards. Any site data that meets minimum quality standards may be utilized to evaluate site conditions and remedial project goals. This data will be evaluated against Data Quality Objectives and relevance to project goals.

### QAPP Development and Maintenance

A QAPP meeting USEPA requirements will be developed and maintained for every project. The QAPP will be developed, reviewed, and approved by the project management team, including the Project Manager, Senior Project Manager, and COO, at a minimum. Review of the QAPP will occur prior to each phase of work to be completed, and revised, if necessary. All revisions will be approved by the project management team.



## IMPLEMENTATION OF WORK PROCESSES

Purpose: To document how work processes will be implemented within SESCO Group to ensure that data or information collected are of the needed and expected quality for their desired use.

### Requirements and Instructions

The basic requirements for controlling work processes and operations are discussed below:

- Planning for quality is conducted according to a graded approach by addressing the nature, complexity, and SOW to be performed. The graded approach defines the extent and degree of the level of quality applied to work activities.
- For characterization of environmental processes and conditions, planning includes a determination of the level, type, quantity and quality of data required.
- For engineered environmental systems, planning includes a determination of the appropriate design criteria and design bases. Planning considers any specially controlled conditions required to ensure that objectives are satisfactorily achieved.
- Work is performed according to approved Work Plans, Drawings and Specifications, SOPs, QMP, QAPPs, and other applicable documents or procedures.
- Work is implemented in a sequence consistent with the need for completion of prerequisites as well as final operations.
- Plans are developed and implemented for appropriate routine and standard work operations. Specialized and/or critical operations may use project-specific documents to perform work operations.
- Management assessments of work processes and operations are accomplished through self-assessments and independent assessments.

### Responsibilities and Authorities

Project Managers are responsible to plan, document, and assess work processes. Managers must identify applicable basic contract and task order quality requirements, program and task expectations, and the project SOW during the work planning process. This planning process occurs before and during the initiation of individual task orders. Responsible managers must establish policies and procedures to address identification of routine operations requiring plans; preparation of plans including form, content, and applicability; and documented approval of plans.

The Senior Project Managers and senior management are responsible for performing self-assessments of compliance and effectiveness of work processes under their control. The QA staff is responsible for performing independent assessments of all work processes impacting quality as directed by senior management. Subcontractor personnel are required to perform work according to approved documents.

### Processes for Ensuring Work Follows Planning and Technical Documents

Just as SESCO Group has processes in place for planning work, it also has a process in place for ensuring that planned work is performed according to the approved QAPP or SOPs. Work planned by the company must follow either: 1) a QAPP, which requires subsequent data verification and validation or 2) a SOP, which is developed using the collective knowledge and experience of the work group and its managers and used in conjunction with written policies to complete a work product that is reviewed by the Company's chain-of-command.





### Work Done Using QAPPs

Data collected or generated as a result of planning done as part of a QAPP, requires verification and validation. Verification ensures that the data was collected following the plan established in the QAPP and validation ensures the data gathered is appropriate for the intended use. Results produced using a QAPP generally are used to support permit, compliance, enforcement, or remediation-related decisions.

For sub-contracted services that involve the collection or analysis of verifiable environmental data, the company requires that the program overseeing the contract either develop a QAPP for the contractor, or require the contractor to develop a QAPP as part of the contract.

### Work Done Using SOPs

To ensure that each project SESCO Group produces is completed quickly, consistently, predictably, and as fairly as is possible, requires that it standardize its decision-making process. SOPs always include certain steps at which some decision-based or decision-making criteria established by management and documented in policy, must be made. SOPs also ensure that the decision-making itself is standardized to the extent possible.

When staff is developing SOPs, they also will be identifying the parameters of a decision that must be made based on decision-making criteria established by management. SESCO Group uses written SOPs and written policies to standardize its work processes.

SESCO Group has in place an ongoing effort to revise and improve existing SOPs, as well as to develop additional SOPs for use by each area of environmental activity. Its efforts to improve and expand its use of SOPs will:

- Promote efficiency & consistency;
- Help staff avoid known pitfalls;
- Make it easier to train new employees;
- Make it easier to track down the cause of a problem;
- Allow staff to develop the “best known method” for doing something and ensure that method is documented, shared, used consistently, and continually refined.

### SOP Development and Use

SESCO Group has put into place a required initiative to promote the further identification of routine operations needing approved process planning (SOPs). The Company has required that each project that implements a discrete environmental activity not performed by another section submit to the Health and Safety Officer a prioritized list of SOPs and policies that need to be updated or developed.

Company managers and executive staff recommend that each section develop an environmental activities list that identifies all the activities it performs, and then build a list of SOPs needed for each activity. They further recommended that the list be prioritized based on:

- Extent of existing policy documentation;
- Extent and quality of existing SOP documentation;
- Procedural gaps revealed through flowcharting that identify the need for a particular SOP(s) or written policy(s);
- Staff input based on past experience ;
- Anticipated impact to work product and/or customer; and,
- Whether the process has characteristics that make it important to control.



It also is recommended in the SOP training that staff developing SOPs or policies to fill existing gaps in work processes start by focusing on easier routine processes to establish expertise and confidence, before trying to develop more complex SOPs.

#### Handling of SOPs, QAPPs, and other Technical Documents

Development: SESCO Group's Policy, SOPs, and QAPP Documentation Policy establish development and content requirements associated with both QAPPs and SOPs. It also establishes content requirements for documenting policies used in conjunction with SOPs to produce the principle work products.

#### Approval

SESCO Group's chain-of-review and approval process relies on the expertise and experience of the Project Managers, Senior Project Managers, COO, Health and Safety Officer and senior management. That same chain-of-review is incorporated into the Policy, SOP, and QAPP Documentation Policy, which addresses the review and approval processes associated with policies, SOPs, and QAPPs. That policy also identifies which staff shall participate in the review and approval process for policies, SOPs, or QAPPs, and who shall sign these company QA documents.

#### Change

QAPPs must be revised before the scope, parameters, or method of a data collection activity may be changed. Similarly, Project Managers executing a QAPP are responsible for identifying, and reporting to their section QA contact, any discrepancies between the written steps of a process in a QAPP and the actual steps taken to do the process.

#### Usage

All procedures shall be developed, documented, and implemented for appropriate routine, standardized, special, or critical operations. The work process will be continuously monitored throughout the project lifecycle by the Project Manager, Senior Project Manager, Chief Operating Officer, and the Health and Safety Officer in order to meet the expected standards of Quality.

#### Expectations

With company-wide access to all quality system documents (SOPs, QAPPs, policies and other related documents), comes the expectation that all SESCO Group staff shall use the appropriate quality system documents whenever applicable. Further, all quality system documents shall be available upon request to the public unless there is an overriding issue of confidentiality.



## ASSESSMENT AND RESPONSE

Purpose: To document how SESCO Group will determine the suitability and effectiveness of the implemented quality system and the quality performance of the environmental programs to which the quality system applies.

### Assessment Tools

The tools used to assess SESCO Group's quality system include, but are not limited to: quality systems audits; MTAs; technical reviews; performance evaluations; data quality assessments; and technical systems audits.

### Qualified Personnel

Personnel conducting quality system assessments have: 1) a technical understanding of quality system features and requirements; 2) no involvement in the program being assessed; 3) adequate organizational freedom to access program components; and, 4) a commitment from management to review and act on assessment findings.

### Multidisciplinary Team Analysis (MTA)

MTA is simply the use of technical and regulatory specialists, operating in a team analysis setting, for the purpose of aiding Project Managers in decision making. The MTA is an efficient means of infusing a very high level of current technical and regulatory knowledge into each project and person we have. The ultimate purpose of the MTA is to allow the staff of SESCO Group to create a group effort that will work in unison in order to find the most cost-effective solution and defensible next steps for our projects. The exchange of knowledge and ideas are beneficial in order to strengthen each participant as well as maximize efforts put forth to achieve closure.

- Attendees for the MTA meeting will be the core MTA team. For the purposes of cross-training another member of the SESCO Group staff will attend. This person will not have to be familiar with the site but will have the opportunity to learn how the MTA works and what aspects of this MTA may be applied to their site(s) in the future. This outside person will be required to charge their time as training. Other technical experts, as well as, legal counsel may be added as necessary.
- At a minimum, MTAs will occur at, but not limited to, these project milestones:
  - When the site is first placed in the SESCO Group system: The MTA at this point is used to determine the optimal site characterization approach. The right set of tools from the SESCO Group toolbox needs to be determined in a brief MTA meeting
  - After initial site characterization is completed: The MTA will strengthen decisions or choices of the PM's interpretations of data to limit second guessing
  - After delineation is completed but before remediation: A review will take place to answer rapidly changing issues in the environmental field
  - When the site is ready to close or a closure path should be decided: It is important that closures have solid lines of evidence backed by the whole team as legal and regulatory options may have changed
- MTAs for simple sites will be brief. The PM and their management, will determine the size or complexity of a site and the appropriate level of MTA response.



- The priority site selection for MTA review is:
  - New Sites with no characterization work done by SESCO Group or any other consultant
  - Ordinary sites in our system and in progress
  - Sites where remediation is anticipated and/or a date has been promised
  - Problem sites (current sites with significant legal, technical or political conflicts)
  - All others
- PMs will be responsible to have a firm grasp of political, insurance and/or management complications and provide the following materials for meeting participants if available:
  - Relevant regulatory correspondence
  - Current maps and tables depicting soil and groundwater concentrations
  - Maps depicting groundwater flow direction
  - Boring logs
  - Maps depicting the plume footprint
  - Cross Sections
  - Complete a MTA summary of the results of the meeting in a manner similar to, and compatible with, the CSM (conceptual site model). The summary will outline the strategy developed by the MTA, and detail the technical advice received, next steps and an acknowledgement of unknowns or uncertainties. A member of the core MTA team will review the MTA summary.
- A member of the MTA team (or their designee) will be included in the Quality Control review process of any document (work plan, report etc.). This review will be limited to ensuring that the document accurately reflects the strategy and steps laid out in the MTA summary.
- Any time the PM feels their project may benefit from an additional MTA meeting, they need to discuss with senior management.
- Billing will take place under work plan development in a task similar to Project Planning and Development by adding a “note”, with the exception of the outside staff member who will bill their time to “training”. The “note” should indicate that technical guidance was provided at a meeting.

#### Technical Review

Technical review is done by SESCO Group staff with technical expertise equivalent to or greater than those who produced the initial work product. Staff conducting technical reviews generally has an adequate degree of independence from responsibility for the final work product.

#### Data Quality Assessment

Like performance evaluation QA assessments, data quality assessments are most appropriate for those activities that gather and/or use verifiable data. Projects that are using data quality assessment, as needed, as one of their assessment tools address its use in their respective project-specific QMPs. Project-specific quality documentation is secured by SESCO Group’s records retention policy and kept in discrete and confidential project folders throughout the lifecycle of the project. Project and data assessment qualifications are met by continual oversight of Senior Project Manager and COO of the MTA.



### Assessment Planning

Assessment planning of project qualifications are met by the Project Manager, when he/she performs a detailed planning analysis of the SOW, while the Senior Project Manager provides continual oversight of the analysis and lower level staff. The outflow produced is captured securely in MS Project© and is kept in the secure project file folder.

### Frequency of Assessments

Assessments shall be planned, scheduled and periodically conducted, and their results evaluated to measure the effectiveness of the implemented quality system. Assessments shall include an evaluation to determine and verify whether technical requirements, not just procedural compliance, are being implemented effectively. Assessment results shall be documented, reported to, and reviewed by management. Annual reviews and planning qualifications are met throughout the lifecycle of active projects. There is ongoing oversight, direction, and review from the Project Manager, Senior Project Manager, COO, and the Health & Safety Officer at SESCO Group.

### Performance Evaluation

This assessment tool is not applicable for every environmental activity throughout the company, but rather is used by some company environmental activity areas that rely on contracted services, especially contracted laboratory services. Projects that use such contracted services should state whether they use QAPPs in their respective QMPs. Laboratories and other contractors used by SESCO Group shall have company-required quality systems in place for quantitative comparison.

### Corrective Actions

Corrective actions written and presented to SESCO Group (such as from a management system review or QAPP assessment) are always a priority for executive staff. QA Managers, Project Managers, and Senior Project Managers shall implement the recommended quality system corrections with COO, Health and Safety Officer, and senior management input and continual oversight.

### Dispute Resolution

Any disagreement by SESCO Group Managers or staff with respect to a corrective action recommendation will be mediated by Executive Staff. SESCO Group Executive Staff will take the lead in resolving any resource or policy issues that inhibit pursuit of corrective action measures by any company program area or project. SESCO Group Executive Staff could modify the assessment recommendation, or alter the quality system in a manner that would alter the QA Managers' assessment, or impact the type of corrective action needed.



## QUALITY IMPROVEMENT

Purpose: To document how SESCO Group will improve the company-wide quality system.

### Quality Improvement Process

A quality improvement process shall be established and implemented to continuously develop and improve the Quality System. Procedures shall be established and implemented to prevent recurrence as well as to detect and correct problems that adversely affect quality during all phases of technical and management activities. The relationship between cause and effect and the root causes of significant problems shall be determined. Appropriate corrective actions shall be planned, documented, and implemented in response to findings in a timely manner.

The SESCO Group senior management team actively supports quality improvement by encouraging technical staff to:

- Continually evaluate the effectiveness of current policies, procedures, and practices via discussions with the Standards Manager and with the SESCO Group senior management team.
- Apply innovative approaches while maintaining efficiency and accuracy. Conduct routine management reviews to define and celebrate success while recognizing and eliminating undesirable processes or results.

The above goals are achieved by continually committing company resources to SESCO Group's quality management efforts. Peer review and performance audits will enable the constant evaluation of SESCO Group programs, projects, and individual staff performance. The Quality Management system is designed to identify opportunities for improving the measurement process. Improvement can take the form of preventing quality problems from occurring by adjusting current work processes, or by seeking better ways to complete the work. The integrated Quality Management process seeks to prevent quality problems from occurring, recognize challenges early, and celebrate success.

Continual improvement is achieved through consistent evaluations of program, project, and individual performances. Continuous oversight by the Project Manager, Senior Project Manager, COO, and the Health and Safety Officer allows SESCO Group to revise program protocols to reflect changing methods and procedures.

### Program Review

SESCO Group Quality Management program will be reviewed annually to determine that SOPs are in place and to revise them if necessary, to ensure that QAPPs are written and approved in advance of project start-up, and to ensure that data quality assessments are made. All deviations and discrepancies noted during a review will be corrected promptly. Recommendations for modifications from SESCO Group Technical Staff will be in writing and submitted to the SESCO Group Standards Manager for review, implementation, and inclusion during regular review sessions, as described in the Quality Assessment and Response section.

